

Electrical/Battery/Mechanical Protocols - Hardware
Click on **BLUE** to go directly to page

ITS

007 Portable Audio-Video Device (Rev. 08/15/2011).....	2
008 Telephone-Speaker Call ID (Rev. 08/15/2011)	8
012 Battery Operated Tools- Screwdrivers/Wrenches & Drills (Rev. 08/15/2011)	12
013 Flashlight and Spotlight (Rev. 08/15/2011)	16
016 Automotive 12 V Electrical Products (Rev. 08/15/2011)	18
017 Relocatable Power Taps (Rev. 08/15/2011).....	21
018 Cord Sets-Power Supply Cords (Rev. 08/15/2011).....	24
022 Electric Paper Shredder (Rev. 08/15/2011).....	26
024 Appliance Remote Control (Rev. 08/15/2011).....	29
026 Current Taps and Adapters (Rev. 08/15/2011).....	31
027 Clock Timer-Electric Switch (Rev. 08/15/2011)	33
028 Photoelectric Switch (Rev. 08/15/2011)	36
032 Corded Telephone/Answering Machine/Caller ID (Rev. 08/15/2011).....	39
033 AC Adaptor (Rev. 08/15/2011)	42
038 Outdoor Seasonal-Use Cord-Connected Wiring Devices (Rev. 08/15/2011)	46
039 Transient Voltage Surge Suppressor (Rev. 08/15/2011).....	50
040 High Pressure Cleaning Machine (Rev. 08/15/2011).....	53
046 Cordless Multi-Tools (Rev. 08/15/2011)	57
048 Battery Operated Reciprocating Saw (Jig and Sabre Saws) (Rev. 08/15/2011).....	61
049 Portable Electric Sander (Rev. 08/15/2011).....	66
053 Headphone, Earphone and Loudspeaker (Rev. 03/24/2010)	70
056 Audio, Video, USB Cables (Rev. 03/24/2010)	74
057 Universal Remote Control (Rev. 08/17/2012).....	76
058 Digital Photo Key Chain (Rev. 08/15/2011)	78
059 Video Game Console (Rev. 08/15/2011)	80
061 Booster Cable (Rev. 08/15/2011).....	84
062 Power Inverter (Rev. 08/15/2011).....	86

BV

4034 Wireless Headphone (Rev. 04/24/2012)	89
4255 Universal Remote Control Battery Operated (Rev. 04/24/2012)	95

MTS

EL-91310 AC Adaptor (Rev. 08/17/2012).....	100
--	-----

General		
Test Item	Test Method	Requirement
Document Review		
1. Labelling – Packaging or product	Uniform Packaging and Labelling Regulation	Distributor's Name & Address (City, State & Zip) Product Identification
2. Country of origin marking	NAFTA & FTCA / Sect. 5	Country Of Origin (If Imported)
3. FCC part 15 rules	Visual Check	FCC part 15 report shall be provided for verification if the operating frequency > 9kHz for AC, or operating frequency > 1.705Hz for Battery operated product.
4. FCC Part 15 marking and instruction	Visual Check	Marking shall include, - "This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation." Instruction manual shall include, - "Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment." - "NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: ■ Reorient or relocate the receiving antenna. ■ Increase the separation between the equipment and receiver. ■ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. ■ Consult the dealer or an experienced radio/TV technician for help."
5. DHHS Marking	Visual Check	Product incorporated laser module shall contain statement: 1. Complies with 21 CFR Chapter 1, Subchapter J" 2. Complies with 21 CFR 1040.10 and 1040.11"
Construction Check		
6. Packing	Visual Check	No hazard when removing the packing
7. Parts Inventory	Visual Check	Shall meet label claims.

Test Item	Test Method	Requirement
8. Workmanship	Visual Check	Shall have no major defects such as: - Cracks or breakage on provided accessories - Serious scratches on the external surface - Peeling of rating or caution / warning label
9. Mechanical Assembly	Visual Check	All mechanical parts shall be securely fixed and prevented from turning.
Construction Check		
10. Internal Wiring	Visual Check	Wireways shall not allow wires to come in contact with sharp points, edges or moving parts.
Fitness for Use		
11. Functional Check	Actual Use	All the major features shall be matched with the installation and use instructions and claims made on the packaging, with no inaccurate or misleading statements about the product, or any other user-friendliness problems.
12. Ease of Installation	Follow directions for installation in Instruction manual	Report relative ease of installation. Report if instructions pertaining to installation are complete and understandable. Parts shall be provided as claimed.
13. Ease of Cleaning	Follow Instructions or Wipe Gently with Damp Cloth	Follow the cleaning instruction. Removable parts shall be replace easily and not causing any safety hazards.
14. Video Recording Operation (if applicable)	Actual Use	All features must operate as intended
15. Playback Check (if applicable)	Actual Use	Playback the video recorded and shall not show any error or distortion.
16. Virus check (if applicable)	Actual Use	Check the product and associated software with a commercial Antivirus program. It shall be virus free.
17. Supported Operating System (if applicable)	Actual Use	Windows ME / Windows 2000 / Windows XP / Vista / Others according to the claimed information.
18. Software installation & Usage (if applicable)	Software installation & Usage (if applicable)	Provided software shall be usable in PC and no difficult during installation.
19. Durability of Switches (if applicable)	In-house method	Switches shall continue to function correctly after 100 cycles of operations.
20. Built in Memory (if applicable)	Visual Check	As specified by manufacturer shown on manual / label
21. Expandable Memory (if applicable)	Expandable Memory (if applicable)	As specified by manufacturer shown on manual / label
22. Memory Media Type (if applicable)	In-house Method	As specified by manufacturer shown on manual / label

Test Item	Test Method	Requirement
23. Interface method (e.g. USB or Firewire) (if applicable)	In-house Method	As specified by manufacturer shown on manual / label
24. Battery Charge Life (if applicable)	In-house Method	Measure the average current of record mode. Calculate the battery life by the formula: rated battery capacity / average record current. Measure the average current of playback mode. Calculate the battery life by the formula: rated battery capacity / average playback current.
AC Operated Product		
Document Review		
25. Safety Certification Mark	Visual Check	The provided UL or ETL Listing safety mark shall be validated.
26. General and Cautionary Markings	UL 60065, Cls. 5	A general, cautionary and warning marking intended to inform the user of a potential risk of fire, electrical shock, or injury to persons shall be provided.
	UL 1492, Cls 126-129	
	UL 60950-1, Cls 1.7	
27. User Manual / Important Safety Instructions / Assembly Instructions	UL 60065, Cls. 5.4	Instructions and warnings shall be provided in the user manual identifying reasonable foreseeable uses or misuses of the product. It shall also include instructions regarding the installation, use, safety and maintenance.
	UL 1492, Cls 130-132	
	UL 60950-1, Cls 1.7	
Construction Check		
28. Plug	Visual Check	Plug shall be 3-wire grounding type or 2-wire polarized attachment plug.
29. Cord Type and Length	UL 60065, Cls. 16	A cord-connected appliance shall be provided with an appropriate type and length of flexible cord per section
	UL 1492, Cls. 24.1, 24.2	
Electrical Safety		
30. Electrical Safety	Visual Check	If listing safety report provided, report any difference of component used in the sample and the listing report. Exclude plastic material, insulation material or other without marking components.
31. Dielectric Voltage-Withstand Test	UL 60065, Cls. 10.3	An appliance shall be capable of withstanding for 1 min when a test voltage of 4240 VAC peak is applied between live parts and accessible metal parts, without an indication of unacceptable performance.
	UL 1492, Cls 71	No breakdown occurs at 1000Vac, 1 min between AC mains and accessible parts
	UL 60950-1, Cls 5.2.2	No breakdown occurs at 3000Vac, 1 min between AC mains and accessible parts
32. Accessibility of Live Parts	UL 60065, Cls. 9.1.1.2	Inspect for access to live parts after removal of detachable parts
	UL 1492, Cls. 18.1	
	UL 60950-1, Cls 2.1.1.1	
33. Temperature Test	UL 60065, Cls. 7	Under normal operating conditions, supporting surface and all accessible surfaces shall not attain excessive temperature rise as described in Table 3.
	UL 1492, Cls 68	Under normal operating conditions, supporting surface and all accessible surfaces shall not attain excessive temperature rise as described in Table 68.1
	UL 60950-1, Cls 4.5	Under normal operation, maximum temperature allowable accessible surface (Mod. = Accessible surfaces only) shall not exceed temperatures specified. Protective devices shall not operate. Handles, knobs continuously held: 55 degC (Metal); 75 degC (Plastic) Handles, knobs touched for short period: 60 degC (Metal); 85 degC (Plastic) External surface: 70 degC (Metal); 95 degC (Plastic)
34. Strain Relief	UL 60065, Cls. 16.5	Strain relief shall be provided to prevent a mechanical stress on a flexible cord from being transmitted to terminals, splices, or interior wiring.
	UL 1492, Cls 91	
	UL 60950-1, Cls 3.2.6	

Test Item	Test Method	Requirement
35. Stability Test	UL 60065, Cls. 19.1	Apparatus having a mass of 7 kg or more shall have adequate stability. During the tests, the apparatus shall not overturn when inclined at an angle at 10° to the horizontal.
36. Continuity of grounding connection	UL 60065, Cls. 15.2	The resistance of the connection between the PROTECTIVE EARTHING TERMINAL or contact, and parts required to be connected thereto, shall not exceed 0.1 ohm.
	UL 60950-1, Cls 2.6.3.4	All exposed dead metal parts that are exposed to contact during any servicing operation, including maintenance and repair, and that can become energized shall be electrically connected to the grounding terminal and with earth resistance not more than 0.1 Ohm.
Adaptor Operated		
Document Review		
37. ** Safety Certification Mark	Visual Check	Shall have valid ETL, UL or CSA listing (for both US and Canada) or equivalent. Verify listing by NRTL product directory with the sample's listing number and model number
38. General and Cautionary Markings	UL 1310 Cls. 49.1	Charger shall be legibly and permanently marked: a) The manufacturer's name, trade name, or trademark; b) The date or other dating period of manufacture not exceeding any three consecutive months; c) A distinctive catalogue or model number, or the equivalent; and d) The electrical rating.
	UL 1310 Cls. 49.4	Charger shall be marked with one of the following: a) "Class 2 BATTERY Charger"; b) "Class 2 TRANSFORMER"; c) "Class 2 Power Supply"; or "Class 2 Power Unit."
	UL 60950-1 Cl. 1.7.1	Shall be legibly and permanently marked with • RATED VOLTAGE(S) or RATED VOLTAGE RANGE(S), in volts • symbol for nature of supply, for d.c. only • RATED FREQUENCY or RATED FREQUENCY RANGE, in hertz • RATED CURRENT, in milliamperes or amperes • manufacturer's name or trade-mark or identification mark • manufacturer's model or type reference • CLASS II EQUIPMENT Symbol
	UL 60065 Cl. 5.1	Shall be legibly and permanently marked with • maker's or responsible vendor's name, trade mark or identification mark • model number or type reference • CLASS II EQUIPMENT Symbol • nature of supply • RATED SUPPLY VOLTAGE or range of the RATED SUPPLY VOLTAGES • rated MAINS frequency (or range of frequencies) in hertz • RATED CURRENT CONSUMPTION or RATED POWER CONSUMPTION • RATED CURRENT CONSUMPTION or RATED POWER CONSUMPTION • date or a dating code of manufacture
	UL 60950-1, Cls. 1.7 UL 60065 Cls. 5.4	Instructions and warnings shall be provided in the user manual identifying reasonable foreseeable uses or misuses of the product. It shall also include instructions regarding the installation, use, safety and maintenance.
39. DOE requirement	10 CFR 430	Shall have valid DOE certification report for verification. It is the vendor's responsibility to submit the certification report and compliance statement to DOE.
Electrical Safety		

Test Item	Test Method	Requirement
40. Output current and power test - Inherently Limited	UL 1310 Cls. 28.2	The maximum output current shall not exceed the value specified in Table 28.1 and the maximum output volt-amperes shall not be more than 100 volt-amperes, except as indicated in 28.2.3 and 28.3.1
41. Output current and power test - Inherently Limited	UL 1310 Cls. 28.3	When the unit includes means to automatically de-energize the output circuit, the values of the output current and volt-amperes shall not exceed those specified in Table 28.2
42. Dielectric Withstand	UL 1310 Cls. 32	Shall withstand for 1 minute without breakdown: a) One thousand volts AC plus twice the maximum rated voltage between 1) The primary circuit and accessible dead metal parts, and 2) The primary and secondary circuit or circuits. b) One thousand volts AC plus two times the sum of secondary voltages between secondary windings for units described in 26.3 or 28.2.3 c) Five hundred volts AC between a secondary circuit and dead metal parts d) A DC potential of 1.414 times (2 V + 1,000), where V is the RMS supply voltage, between the terminals of a capacitor used for radio interference elimination or arc suppression
	UL 60950-1 Cls 5.2.2 and 6.2.2	- No breakdown occurs at 2000Vac, 1 min between AC mains and accessible parts - No breakdown occurs at 1500Vac, 1 min between telephone line interface and handset. - No breakdown occurs at 1000Vac, 1 min between telephone line interface and other accessible parts.
	UL 60065 Cls 10.3.2	The Product shall withstand, - 4200Vpeak for 1 minute between live parts of input circuits and live parts of output circuits - 4200Vpeak for 1 minute between live parts of input circuits and user accessible surface
	UL 60065 / Cls 16.5	Shall withstand 40N, 1 second, 100 times pull force.
43. Strain Relief	UL 1310, Cls. 41	Supply cord shall withstand a 35 lbf (156 N) strain for 1 minute. For units employing a flexible output cord, the cord shall subject to a 20 lbf (89N) for 1 minute without damage.
	UL 60950-1 Cls 3.2.6	Power supply cord shall withstand the following pull force for 25 times, 1 second each Mass of equipment (kg) ≤ 1: 30 N 1 < Mass of equipment (kg) ≤ 4: 60 N Mass of equipment (kg) > 4: 100 N
	UL 60065 / Cls 16.5	Shall withstand 40N, 1 second, 100 times pull force.
44. Direct Plug-In Blade Secureness Test	UL 1310, Cls. 43	Each blade and the grounding pin, if provided, shall withstand a direct pull of 20 lbf (89 N) for 2 minutes without loosening. The two blades tested together shall also withstand a direct pull of 20 lbs. for 2 minutes without loosening.
	UL 817	(for other than UL 1310) Each blade and pin shall be capable of withstanding a pull of 20 lbf for 2 minutes. Displacement of more than 2.4 mm is not acceptable.

Test Item	Test Method	Requirement
45. Impact Test	UL 1310, Cls. 46.2	A sample is to be dropped (free fall) 3 times in succession from a height of 3 feet onto a hardwood surface. After test, the unit shall pass dielectric voltage withstand test.
	UL 60950-1 Cls 4.2.6	A sample is to be dropped (free fall) 3 times in succession from a height of 1m onto a hardwood surface. After test, the unit shall pass dielectric voltage withstand test.
	UL60065 5 Cls 12.1.4	A sample is to be dropped (free fall) 3 times in succession from a height of 1m onto a hardwood surface. After test, the unit shall pass dielectric voltage withstand test.
Battery operated		
Electrical Safety		
46. Battery reverse polarity	In house method	Insert battery but with reverse polarity and stabilize for 1 hour. Explosion or chemical leakage shall not occur.
47. Battery overcharge test	In house method	With full charged battery installed and charge for additional 7 hours, explosion or chemical leakage shall not occur.
48. Battery short circuit test	UL 60065 Cl. 14.10.1 (Modify with test temp. at 20 degC only and sample size to 1)	For rechargeable battery, with full charge battery installed and short circuiting the positive and negative terminals of the battery with a resistor of 0.1 ohm max. During and after test, the battery shall not explode or catch fire, or chemical leaks. Temperature of battery pack casing shall not exceed 150 degC.
49. Overcharge Test	In-house Method	Fully charge the product according to user instruction. Additional charge for 7 hours. No overheat, melting of parts and chemical leakage shall occur.
Additional test		
50. Chemical & Energy Efficiency test for all electrical items to California*	DG-EA065	Shall meet the requirements in DG-EA065 • All products containing CA Prop 65 warning label will be reported as FAILED.
51. Dollar General Certificate of Compliance - Toxics in packaging	Client requirement	Shall provide signed/ chopped document: Dollar General Toxics in Packaging Certificate of Compliance. Client requirement
52. *Volatile organic Substances (VOC) (if applicable)	GC-MS screening/US EPA method 5000 and 8021B / doc review	Product with solvent based-liquid (eg. Adhesive, paints, glues and etc.) shall not contain toxic aromatic compounds and hazard substances. GC-MS screening or US EPA method 5000 and 8021B In lieu of testing, test report can be submitted if dated within 1 year.

Sample size: 3 sets

Turnaround time: 7 working days

Testing charge :		Sample size
Basic charge:	USD 400	3sets
Additional charge:		
Chemical & Energy Efficiency test for all electrical items to California DG-EA065(US)	Subject to actual sample	Subject to actual sample

Remark:

- UL 60065, 1492 & 60950-1 applicable to AC operated audio and video products. UL 1310, UL 60065 & 60950-1 applicable to AC adaptor operated audio and video products.
- Additional samples and tests may be necessary subjected to the review by Intertek upon receipt of the sample.

Technical information and related recommendations listed in this specification are proprietary information of Intertek Testing Services. Copying is prohibited without permission of Intertek in written document. This specification does not purport to include all the necessary provisions nor address all of the safety concerns, if any, associated with its use. Compliance with this specification does not of itself confer immunity from legal obligations.

Test Item	Test Method	Requirement
Document Review		
1. Labeling – Packaging or product	Uniform package and labeling regulations	Distributor's Name & Address (City, State & Zip) Product Identification
2. Country of origin	NAFTA & FTCA / Sect. 5	Country Of Origin (If Imported)
3. Safety Certification Mark	Visual	Shall have valid UL or ETL listing. Verify listing by NRTL product directory with the sample's listing number and model number.
4. General and Cautionary Markings	UL 60950-1 Cl. 1.7	A general, cautionary and warning marking intended to inform the user of a potential risk of fire, electrical shock, or injury to persons shall be provided. Marking shall contain at least - Manufacturer's name or trade-mark or identification mark - Manufacturer's model or type reference - Rated voltage (for AC product) - Rated frequency (for AC product) - Rated current (for AC product) - Class II symbol (for class II equipment only)
5. User Manual / Important Safety Instructions / Assembly Instructions	UL 60950-1 Cl. 1.7.2	Instructions and warnings shall be provided in the user manual identifying reasonable foreseeable uses or misuses of the product. It shall also include instructions regarding the installation, use, safety and maintenance. For product provided with AC adaptor, the instruction shall state that the socket outlet shall be installed near the equipment and shall be easily accessible.
6. FCC part 68	Visual	Shall provide valid FCC certificate and report for verification.
7. FCC Part 68 marking and instruction	Visual	Marking shall include, - US: AAAEQ##TXXX - AAA : responsible party's grantee code - EQ : equipment code - ## : ringer equivalence number - T : ringer type - XXX : product identifier - "HAC" (for telephone only)
8. FCC part 15	Visual	Shall provide FCC part 15V report for verification.

Test Item	Test Method	Requirement
9. FCC Part 15 marking and instruction	Visual	Marking shall include, - "This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation." Instruction manual shall include, - "Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment." - "NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: ■ Reorient or relocate the receiving antenna. ■ Increase the separation between the equipment and receiver. ■ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. ■ Consult the dealer or an experienced radio/TV technician for help."
Construction Check		
10. Packing	Visual	No hazard when removing the packing
11. Parts Inventory	Visual	Shall meet label claims.
12. Workmanship	Visual	Shall have no major defects such as: - Cracks or breakage on provided accessories - Serious scratches on the external surface - Peeling of rating or caution / warning label
13. Mechanical Assembly	Visual Check	All mechanical parts shall be securely fixed and prevented from turning.
14. Internal Wiring	Visual Check	Wireways shall not allow wires to come in contact with sharp points, edges or moving parts.
15. Plug	UL 60950-1 Cl. 3.2.1	The attachment plug shall have a current rating no lower than 125% of the current drawn by the apparatus under normal operating conditions and a voltage rating appropriate for the rated voltage for the apparatus.
16. Cord Type and Length	UL 60950-1 Cl. 3.2.5.1	A cord-connected appliance shall be provided with an appropriate type and length of flexible cord per section
Electrical Safety		

Test Item	Test Method	Requirement
17. Component Check	Visual	If listing safety report provided, report any difference of component used in the sample and the listing report. Exclude plastic material, insulation material or other without marking components.
18. Dielectric Voltage Withstand Test	UL 60950-1 Cl. 5.2	The electric strength shall be adequate between telephone line and accessible parts. Mains to handset : 1500Vac Mains to enclosure : 1000Vac Telephone line to handset : 1500Vac Telephone line to enclosure : 1000Vac
19. Accessibility of Live Parts	UL 60950-1 Cl. 2.1.1.1	To determine whether a HAZARDOUS LIVE part is ACCESSIBLE, the jointed test finger according to test probe B of IEC 61032 Figure 14, is pushed against the enclosure or inserted through any openings of the enclosure, including openings in the bottom, without appreciable force.
20. Temperature Test	UL 60950-1 Cl. 4.5 (Mod)	Record the maximum operating temperature of enclosures and handset, which shall not exceed the following requirements: Enclosure – 70°C Knobs - 60°C Handset - 50°C
21. Strain Relief	UL 60950-1 Cl. 3.2.6	Strain relief shall be provided to prevent a mechanical stress on a flexible cord from being transmitted to terminals, splices, or interior wiring.
22. Power consumption	In-house method	If AC adaptor used, power consumption of the product shall not exceed power output of the AC adaptor.
23. Battery reverse polarity	UL 60950-1 Cl. 4.3.8	Insert battery but with reverse polarity and stabilize for 1 hour. Explosion or chemical leakage shall not occur.
24. Battery overcharge test	UL 60950-1 Cl. 4.3.8	For product with rechargeable battery, full charged battery installed and charge for additional 7 hours, explosion or chemical leakage shall not occur.
25. Battery short circuit test	UL 60950-1 Cl. 4.3.8	For product with rechargeable battery, full charge battery installed and short circuiting any voltage-limiting components in the load circuit of the battery unit test, explosion or chemical leakage shall not occur.
26. Leakage current	UL 60950-1 Cl. 5.1	The leakage current of unit shall be below limits required: - Hand-held product – less than 0.75mA - All other product – less than 0.25mA
Fitness for Use		
27. Functional Check	Actual Use	All the major features shall be matched with the installation and use instructions and claims made on the packaging, with no inaccurate or misleading statements about the product, or any other user-friendliness problems.
28. Ease of Installation	Actual Use	Follow directions for installation in Instruction manual. Report relative ease of installation. Report if instructions pertaining to installation are complete and understandable. Parts shall be provided as claimed.
29. Ease of Cleaning	Actual use	Follow Instructions or Wipe Gently with Damp Cloth. Removable parts shall be replaced easily and not causing any safety hazards.
Additional test		

Test Item	Test Method	Requirement
30. Chemical & Energy Efficiency test for all electrical items to California*	DG-EA065	Shall meet the requirements in DG-EA065 • All products containing CA Prop 65 warning label will be reported as FAILED.
31. Dollar General Certificate of Compliance - Toxics in packaging	Client requirement	Shall provide signed/ chopped document: Dollar General Toxics in Packaging Certificate of Compliance. Client requirement

Sample size: 3 sets

Turnaround time: 7 working days

Test charge : 200USD

* For additional charge and other information of Chemical & Energy Efficiency test for all electrical items to California, please see the protocol DG-EA065(US) for details.

Remark: Additional samples and tests may be necessary subjected to the review by Intertek upon receipt of the sample.

DOLLAR
 GENERAL

CONFIDENTIAL

Test Item	Test Method	Requirement
Document Review		
1. Labelling – Packaging or product	Uniform Packaging and Labelling Regulations	Distributor's name & Address (City, State & Zip) shall be shown on the packaging
		Product Identification
2. Country of origin	NAFTA & FTCA / Sect. 5	Shall mark with Country Of Origin (If Imported)
3. Mercury-Containing and Rechargeable Battery Management Act Pub. L. 104-142. 13 May 1996. Stat. 110.1333.	Title I, Rechargeable Battery Recycling Act, Visual (if applicable)	Cadmium and Lead containing batteries shall bear 3 chasing arrows or comparable recycling symbol and A) Ni-Cd or nickel-cadmium and "BATTERY MUST BE RECYCLED OR DISPOSED OF PROPERLY" B) Pb or "LEAD", "RETURN" and "RECYCLE" and "BATTERY MUST BE RECYCLED" if sealed.
4. Safety Certification Mark	Visual Check	Shall have valid UL or ETL listing. Verify listing by NRTL product directory with the sample's listing number and model number.
5. DOE requirement (For Power supply)	10 CFR 430	Shall have valid DOE certification report for verification. It is the vendor's responsibility to submit the certification report and compliance statement to DOE.
6. General and Cautionary Markings	UL 745-3 Cls. 7.1	Tools shall be marked with: - rated voltage(s), in volts; - symbol for direct current; - manufacturer's name, trade mark or identification mark; - manufacturer's model or type reference; - date of manufacture; - Warning — To reduce the risk of injury, user must read and understand instruction manual.
	UL 745-3 Cls. 7.2	Tools enclosures containing separable or detachable batteries shall be marked with: - rated voltage(s), in volts; - symbol for direct current; - manufacturer's name, trade mark, or identification mark; - manufacturer's model or type reference
	UL 1310 Cls. 49.1	Charger shall be legibly and permanently marked: a) The manufacturer's name, trade name, or trademark; b) The date or other dating period of manufacture not exceeding any three consecutive months; c) A distinctive catalogue or model number, or the equivalent; and d) The electrical rating.
	UL 1310 Cls. 49.4	Charger shall be marked with one of the following: a) "Class 2 BATTERY Charger"; b) "Class 2 TRANSFORMER"; c) "Class 2 Power Supply"; or d) "Class 2 Power Unit."
7. User Manual / Important Safety Instructions / Assembly Instructions	UL 745-4-1 Cls. 31	Tools shall be provided with an instruction manual such that it is obvious when tool is removed from the carton. It shall include the following major categories in the sequence given: — GENERAL SAFETY RULES — SPECIFIC SAFETY RULES AND/OR SYMBOLS — FUNCTIONAL DESCRIPTION — ASSEMBLY — OPERATION — MAINTENANCE — ACCESSORIES Equivalent terms for titles of categories may be used.

Test Item	Test Method	Requirement
	UL 745-4-2 Cls. 31	Tools shall be provided with, “Hold tool by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring. Contact with a “live” wire will also make exposed metal parts of the tool “live” and shock the operator.”
Construction Check		
8. Packing	Visual Check	No hazard when removing the packing
9. Parts Inventory	Visual Check	Shall meet label claims.
2.1 Workmanship - external	Visual Check	Shall have no major defects such as: - Cracks or breakage on provided accessories - Serious scratches on the external surface - Peeling of rating or caution / warning label
10. Workmanship - internal	Visual Check	Solder connections shall be secured Components shall be reliably mounted on PCB or other proper fixing.
11. Internal Wires	Visual Check	Wireways shall be smooth and entirely free from sharp edges, burrs, fins, moving parts, and the like that may cause abrasion of insulation on conductors. All soldering joints shall be mechanically secured before soldered.
12. Mechanical Assembly	Visual Check	All mechanical parts shall be securely fixed and prevented from turning.
13. Accessibility of Live Parts	UL 1310	The electrical parts shall be located or enclosed so that persons are protected against inadvertent contact with uninsulated live parts.
14. Polarization	Visual Check	Switch, fuse and other protective device shall be connected at ungrounded conductors. The polarization of conductors at plug and receptacles shall be matched
15. Chuck Keys	UL 745-4-1 Cls. 18	Chuck keys shall be so designed that they drop easily out of position when released; they shall not be fixed to the tool by means of a chain, string, or similar means
16. Switches	UL 745-4-1 Cls. 20	Switches shall be so located that accidental operation is unlikely to occur. Compliance is checked by inspection and by a test consisting of placing the tool in any possible position on a horizontal surface. Inadvertent operation of the switch shall not occur. A trigger-switch lock-on shall be located so that accidental activation is unlikely.
17. Charger Plug	UL 1310 cls. 5.14	When inserted in a duplex receptacle, no part of the direct plug-in unit, including an integral tab or output wiring, shall interfere with full insertion of an attachment plug into the adjacent receptacle.
18. Charger Plug	UL 1310 Cls. 5.17	The enclosure of a unit shall be capable of being gripped for removal from the receptacle to which it is connected and the perimeter of the face section from which the blades project shall not be less than 0.20 inch (5.1 mm) from any point on either blade.
Electrical Safety		
Screwdriver		
19. Dielectric Voltage-Withstand Test	UL 745-3 Cls. 15	The electric strength of handles and grasping surfaces shall be adequate. The insulation is subjected for 1 min to a voltage of 1000 V is applied between the output shaft and handles or grasping surfaces.
20. Motor Reversing Tests	UL 745-3 Cls. 17.2	Switches or other devices for reversing motor direction shall withstand the stresses occurring when the direction of rotation is changed under running conditions with a fully charged battery per Section for 25 times. No mechanical or electrical failure shall occur.
21. Mechanical Strength	UL 745-3 Cls. 19.1	Tools shall have adequate mechanical strength and be so constructed as to withstand such rough handling as may be expected in normal use. Three drops from height of 1 meter.
22. Power Draw	Current meter	If the product can be driven by an AC adaptor, measure DC current draw under normal use condition at nominal voltage. Current draw by product shall not exceed rated output of the adaptor.
23. Heating	UL 745-3 cls. 11	Accessible surface of the tool shall not attain excessive temperature under a no-load conditions per Section and Table. Cutouts and overload releases shall not operate during the test.
Battery Charger		

Test Item	Test Method	Requirement
24. Output current and power test - Inherently Limited	UL 1310 Cls. 28.2	The maximum output current shall not exceed the value specified in Table 28.1 and the maximum output volt-amperes shall not be more than 100 volt-amperes, except as indicated in 28.2.3 and 28.3.1
25. Output current and power test - Inherently Limited	UL 1310 Cls. 28.3	When the unit includes means to automatically de-energize the output circuit, the values of the output current and volt-amperes shall not exceed those specified in Table 28.2
26. Dielectric Withstand	UL 1310 Cls. 32	Shall withstand for 1 minute without breakdown: a) One thousand volts AC plus twice the maximum rated voltage between 1) The primary circuit and accessible dead metal parts, and 2) The primary and secondary circuit or circuits. b) One thousand volts AC plus two times the sum of secondary voltages between secondary windings for units described in 26.3 or 28.2.3 c) Five hundred volts AC between a secondary circuit and dead metal parts d) A DC potential of 1.414 times (2 V + 1,000), where V is the RMS supply voltage, between the terminals of a capacitor used for radio interference elimination or arc suppression
27. Strain Relief	UL 1310 Cls. 40	Must withstand a 35 lbf (156 N) strain for 1 minute.
28. Direct Plug-In Blade Secureness Test	UL 1310 Cls. 41.1	Each blade and the grounding pin, if provided, shall withstand a direct pull of 20 lbf (89 N) for 2 minutes without loosening. The two blades tested together shall also withstand a direct pull of 20 lbs. for 2 minutes without loosening.
29. Impact Test	UL 1310 Cls. 44.3	Shall be subjected to a single impact of 5 lbf (6.78 N m) by a 2 in. (51 mm) dia., 1.18 lb (535 g) steel ball from a height of 51 in. (1.30 m).
30. Static Stability	In house method	Shall not tip over at an 8° incline in the direction of least stability with battery inserted in charger.
Fitness for Use		
31. Functionality Check	Actual Use	To check if the product is able to operate as intended according to the instruction manual.
32. Continuous Operation Test	Actual use	Under maximum loading condition for 4 hours, the following shall not occur: Emission of flame, molten metal or growing or flaming particles through any openings; Creation of any openings in the enclosure that result in accessibility of live parts / Ignition of the enclosure.
33. Overcharge Test	Actual use	After fully charged the battery, charge for an addition of 7 hours. No chemical leakage, emission of flame shall occur.
Additional test		
34. *Chemical & Energy Efficiency test for all electrical items to California*	DG-EA065	Shall meet the requirements in DG-EA065 • All products containing CA Prop 65 warning label will be reported as FAILED.
35. Dollar General Certificate of Compliance - Toxics in packaging	Client requirement	Shall provide signed/ chopped document: Dollar General Toxics in Packaging Certificate of Compliance. Client requirement
36. *Volatile organic Substances (VOC)(if applicable)	GC-MS screening/US EPA method 5000 and 8021B / doc review	Product with solvent based-liquid (eg. Adhesive, paints, glues and etc.) shall not contain toxic aromatic compounds and hazard substances. GC-MS screening or US EPA method 5000 and 8021B In lieu of testing, test report can be submitted if dated within 1 year.

* Additional Charge Item.

Testing Charge & Sample Size & Turnaround Time

Turnaround time	7 working day
Sample size	3 pieces

Technical information and related recommendations listed in this specification are proprietary information of Intertek Testing Services. Copying is prohibited without permission of Intertek in written document. This specification does not purport to include all the necessary provisions nor address all of the safety concerns, if any, associated with its use. Compliance with this specification does not of itself confer immunity from legal obligations.



Testing charge :			Sample size
Basic charge:	USD 250		
Additional charge:			
Chemical & Energy Efficiency test for all electrical items to California DG-EA065(US)	Subject to actual sample		Subject to actual sample

Remark: Additional samples and tests may be necessary subjected to the review by Intertek upon receipt of the sample.

DOLLAR
GENERAL
CONFIDENTIAL

Test Items	Test Method	Test Requirements
Document Review		
1. Labelling – Packaging or product	Uniform Packaging and Labeling Regulations	Distributor's name & Address (City, State & Zip) shall be shown on the packaging Product Identification
2. Country of origin	NAFTA & FTCA / Sect. 5	If imported, country of origin marking shall be provided and clearly indicated to the ultimate purchaser of a product where it is made.
3. General and Cautionary Markings	UL 2089 Section 29	Battery chargers shall be marked "CAUTION" and following or equivalent: 'Charge only __ type rechargeable batteries. Other types may burst causing personal injury or damage'. All products shall be permanently marked with manufacturer's name, catalog number, input and output ratings, date of manufacture.
4. User Manual / Important Safety Instructions / Assembly Instructions	UL 2089 Section 31-34	Shall be present as required and as appropriate.
Construction Check		
5. Packing	Visual	No hazard when removing the packing
6. Parts Inventory	Visual	Shall meet label claims.
7. Workmanship - external	Visual Check	Shall have no major defects such as: - Cracks or breakage on provided accessories - Serious scratches on the external surface - Peeling of rating or caution / warning label
8. Workmanship - internal	Visual Check	Solder connections shall be secured Components shall be reliably mounted on PCB or other proper fixing.
9. Internal Wires	Visual Check	Wireways shall be smooth and entirely free from sharp edges, burrs, fins, moving parts, and the like that may cause abrasion of insulation on conductors. All soldering joints shall be mechanically secured before soldered.
10. Mechanical Assembly	Visual Check	All mechanical parts shall be securely fixed and prevented from turning.
11. Polarization	Visual Check	Switch, fuse and other protective device shall be connected at ungrounded conductors. The polarization of conductors at plug and receptacles shall be matched
12. Cord Type and Length	UL 2089 Section 12.1	Shall be one of listed types (SPT-2 etc). If in Class 2 or limited energy (LVLE) circuit, insulation thickness may be 0.33 mm.
13. Protective Devices	UL 2089 Section 9	Report type and rating of protective device. Protective devices shall be rated no more than 8 A (for 12 V systems) or 4 A for (24 V systems). Protective devices not within the cigarette lighter connector shall be no more than 5" away by the conductor. Protective devices shall otherwise be per section.
Electrical Safety		
14. Component Check	Visual	If listing safety report provided, report any difference of component used in the sample and the listing report. Exclude plastic material, insulation material or other without marking components.
15. Dielectric Voltage-Withstand Test	UL 2089 Section 25	While in use temperature, shall withstand 1000 + 2 x rated voltage ac hipot test.
16. Accessibility of Live Parts	UL 2089 Section 15.1.1	Parts over 60 V shall not be accessible.
17. Strain Relief	UL 2089 Section 28	Shall withstand 20 Lbs. force.
18. Temperature Test	UL 2089 Section 24.1 (Mod.)	When tested with rated load, maximum temperature rise allowable accessible surface (Mod. = Accessible surfaces only) shall not exceed temperatures specified (line c). Protective devices shall not operate.
19. Maximum Output Voltage Test	UL 2089 Section 22.1	Maximum output shall be no more than 60 V.
Fitness for Use		

Test Items	Test Method	Test Requirements
20. Functionality Check	Actual Use	To check if the product is able to operate as intended according to the instruction manual.
21. Ease of Installation	Follow directions for installation in Instruction manual	Report relative ease of installation. Report if instructions pertaining to installation are complete and understandable. Parts shall be provided as claimed.
22. Ease of Cleaning	Follow Instructions or Wipe Gently with Damp Cloth	Follow the cleaning instruction. Removable parts shall be replace easily and not causing any safety hazards.
23. Continuous Operation Test	Actual use	Under maximum loading condition for 4 hours, the following shall not occur: Emission of flame, molten metal or growing or flaming particles through any openings; Creation of any openings in the enclosure that result in accessibility of live parts / Ignition of the enclosure, or functional failure.
Additional Test		
24. *With Child Appealing Features	DG-EA051	Shall meet the requirements in DG-EA051
25. *Chemical & Energy Efficiency test for all electrical items to California	DG-EA065	Shall meet the requirements in DG-EA065 • All products containing CA Prop 65 warning label will be reported as FAILED.
26. Dollar General Certificate of Compliance - Toxics in packaging	Client requirement	Shall provide signed/ chopped document: Dollar General Toxics in Packaging Certificate of Compliance. Client requirement
27. *Volatile organic Substances (VOC)(if applicable)	GC-MS screening/US EPA method 5000 and 8021B / doc review	Product with solvent based-liquid (eg. Adhesive, paints, glues and etc.) shall not contain toxic aromatic compounds and hazard substances. GC-MS screening or US EPA method 5000 and 8021B In lieu of testing, test report can be submitted if dated within 1 year.

* Additional charge

Testing Charge & Sample Size & Turnaround Time

Turnaround time	7 working day	
Sample size	3 pieces	
Testing charge :		Sample size
Basic charge:	USD 200	
Additional charge:		
DG-EA051	80 exclude chemical tes	12 sets
Chemical & Energy Efficiency test for all electrical items to California DG-EA065(US)	Subject to actual sample	Subject to actual sample

Remark: Additional samples and tests may be necessary subjected to the review by Intertek upon receipt of the sample.

Test Items	Test Method	Test Requirements
Document Review		
1. Labelling – Packaging or product	Uniform Packaging and Labeling Regulations	Distributor's name & Address (City, State & Zip) shall be shown on the packaging
		Product Identification
2. Country of origin	19 CFR 134.11	If imported, country of origin marking shall be provided and clearly indicated to the ultimate purchaser of a product where it is made.
3. Safety Certification Mark	Visual	The provided UL or ETL Listing safety mark shall be validated.
4. General and Cautionary Markings	UL 2089 Section 29	Battery chargers shall be marked "CAUTION" and following or equivalent: 'Charge only __ type rechargeable batteries. Other types may burst causing personal injury or damage'. All products shall be permanently marked with manufacturer's name, catalog number, input and output ratings, date of manufacture.
5. User Manual / Important Safety Instructions / Assembly Instructions	UL 2089 Section 31-34	Shall be present as required and as appropriate.
6. Food Contact Requirement	US FDA 21CFR 170-189	The product must meet the relevant requirements and verify the relative report and document. Note: Proper documentation should be available to demonstrate that the materials are of "US FDA approved food grade". * If no documents can be provided, additional FDA test required
Construction Check		
7. Packing	Visual	No hazard when removing the packing
8. Parts Inventory	Visual	Shall meet label claims.
9. Workmanship - external	Visual Check	Shall have no major defects such as: - Cracks or breakage on provided accessories - Serious scratches on the external surface - Peeling of rating or caution / warning label
10. Workmanship - internal	Visual Check	Solder connections shall be secured Components shall be reliably mounted on PCB or other proper fixing.
11. Internal Wires	Visual Check	Wireways shall be smooth and entirely free from sharp edges, burrs, fins, moving parts, and the like that may cause abrasion of insulation on conductors. All soldering joints shall be mechanically secured before soldered.
12. Mechanical Assembly	Visual Check	All mechanical parts shall be securely fixed and prevented from turning.
13. Accessibility of Live Parts	UL 2089 Section 15.1.1	Parts over 60 V shall not be accessible.
14. Polarization	Visual Check	Switch, fuse and other protective device shall be connected at ungrounded conductors. The polarization of conductors at plug and receptacles shall be matched
15. Cord Type and Length	UL 2089 Section 12.1	Shall be one of listed types (SPT-2 etc). If in Class 2 or limited energy (LVLE) circuit, insulation thickness may be 0.33 mm.
16. Protective Devices	UL 2089 Section 9	Report type and rating of protective device. Protective devices shall be rated no more than 8 A (for 12 V systems) or 4 A for (24 V systems). Protective devices not within the cigarette lighter connector shall be no more than 5" away by the conductor. Protective devices shall otherwise be per section.
Electrical Safety		
17. Component Check	Visual	If listing safety report available, report any difference of component used in the sample and the listing report. Exclude plastic material, insulation material or other without marking components.
18. Dielectric Voltage-Withstand Test	UL 2089 Section 25	While in use temperature, shall withstand $1000 + 2 \times \text{rated voltage}$ ac hipot test.

Technical information and related recommendations listed in this specification are proprietary information of Intertek Testing Services. Copying is prohibited without permission of Intertek in written document. This specification does not purport to include all the necessary provisions nor address all of the safety concerns, if any, associated with its use. Compliance with this specification does not of itself confer immunity from legal obligations.

Test Items	Test Method	Test Requirements
19. Strain Relief	UL 2089 Section 28	Shall withstand 20 Lbs. force.
20. Temperature Test	UL 2089 Section 24.1 (Mod.)	When tested with rated load, maximum temperature rise allowable accessible surface (Mod. = Accessible surfaces only) shall not exceed temperatures specified (line c). Protective devices shall not operate.
21. Maximum Output Voltage Test	UL 2089 Section 22.1	Maximum output shall be no more than 60 V.
Fitness for Use		
22. Functionality Check	Actual Use	To check if the product is able to operate as intended according to the instruction manual.
23. Ease of Installation	Follow directions for installation in Instruction manual	Report relative ease of installation. Report if instructions pertaining to installation are complete and understandable. Parts shall be provided as claimed.
24. Ease of Cleaning	Follow Instructions or Wipe Gently with Damp Cloth	Follow the cleaning instruction. Removable parts shall be replace easily and not causing any safety hazards.
25. Continuous Operation Test	Actual use	Under maximum loading condition for 4 hours, the following shall not occur: Emission of flame, molten metal or growing or flaming particles through any openings; Creation of any openings in the enclosure that result in accessibility of live parts / Ignition of the enclosure, or functional failure.
26. Stability – Mug	In house method	Place mug filled with liquid at a 10° incline. Verify the mug holder does not tip over.
Additional test		
27. *Chemical & Energy Efficiency test for all electrical items to California	DG-EA065	Shall meet the requirements in DG-EA065 • All products containing CA Prop 65 warning label will be reported as FAILED.
28. Dollar General Certificate of Compliance - Toxics in packaging	Client requirement	Shall provide signed/ chopped document: Dollar General Toxics in Packaging Certificate of Compliance. Client requirement
29. *Volatile organic Substances (VOC)(if applicable)	GC-MS screening/US EPA method 5000 and 8021B / doc review	Product with solvent based-liquid (eg. Adhesive, paints, glues and etc.) shall not contain toxic aromatic compounds and hazard substances. GC-MS screening or US EPA method 5000 and 8021B In lieu of testing, test report can be submitted if dated within 1 year.

* Additional Charge Item.

Testing Charge & Sample Size & Turnaround Time

Turnaround time	7 working day	
Sample size	3 pieces	
Testing charge :		Sample size
Basic charge:	USD 200	
Additional charge:		
Chemical & Energy Efficiency test for all electrical items to California DG-EA065(US)	Subject to actual sample	Subject to actual sample

* Additional charge for FDA Food Simulation (Plastics): 180 to 335USD depend on type of plastics.

Plastic Type:	Sample size:	Testing Time:	Testing Charge:
---------------	--------------	---------------	-----------------

Technical information and related recommendations listed in this specification are proprietary information of Intertek Testing Services. Copying is prohibited without permission of Intertek in written document. This specification does not purport to include all the necessary provisions nor address all of the safety concerns, if any, associated with its use. Compliance with this specification does not of itself confer immunity from legal obligations.

Acrylonitrile Copolymer	20g / 3 pcs	9 WDs	320
Acrylic	80 in sq	9 WDs	335
P.C. (Polycarbonate)	60g	6 WDs	225
P.E. (Polyethylene)	10g	6 WDs	205
P.P. (Polypropylene)	10g	6 WDs	250
P.S. (Polystyrene)	5g	6 WDs	180
PVC (Polyvinyl Chloride)	10g	8 WDs	255

Remark: Additional samples and tests may be necessary subjected to the review by Intertek upon receipt of the sample.

DOLLAR
GENERAL
CONFIDENTIAL

Test Items	Test Method	Test Requirements
Document Review		
1. Labeling – Packaging or product	Uniform Labelling Regulation	Distributor's name & Address (City, State & Zip) shall be shown on the packaging Product Identification
2. Country of origin	NAFTA & FTCA / Sect. 5	If imported, country of origin marking shall be provided and clearly indicated to the ultimate purchaser of a product where it is made.
3. Safety listing mark	Document Check	Shall have valid UL or ETL listing or equivalent. Verify listing by NRTL product directory with the sample's listing number and model number.
4. General and Cautionary Markings	UL 1363, Cls 38	Shall be permanently and clearly marked on the outside of the enclosure with: a) Manufactures name, trade name, trademark or other descriptive marking which identifies the organization responsible for the product b) Catalogue number or equivalent c) Rating in voltage and amperes d) Date of manufacture
5. User Manual / Important Safety Instructions / Assembly Instructions	UL 1363, 2ed. Cls. 38	Instructions and warnings shall be provided to identifying reasonable, foreseeable uses or misuses of the product. All accessories shall be described in the user's manual and provided with instructions for proper use.
Construction Check		
6. Packing	Visual	No hazard when removing the packing
7. Parts Inventory	Visual	Shall meet label claims.
8. Workmanship - external	Visual Check	Shall have no major defects such as: - Cracks or breakage on provided accessories - Serious scratches on the external surface - Peeling of rating or caution / warning label
9. Workmanship - internal	Visual Check	Solder connections shall be secured Components shall be reliably mounted on PCB or other proper fixing.
10. Internal Wires	Visual Check	Wireways shall be smooth and entirely free from sharp edges, burrs, fins, moving parts, and the like that may cause abrasion of insulation on conductors. All soldering joints shall be mechanically secured before soldered.
11. Mechanical Assembly	Visual Check	All mechanical parts shall be securely fixed and prevented from turning.
12. Polarization	Visual Check	Switch, fuse and other protective device shall be connected at ungrounded conductors. The polarization of conductors at plug and receptacles shall be matched
13. Cord Type and Length	UL 1363	A cord-connected appliance shall be provided with an appropriate type and length of flexible cord per section
Electrical Safety		
14. Component Check	Visual	If listing safety report provided, report any difference of component used in the sample and the listing report. Exclude plastic material, insulation material or other without marking components.
15. Dielectric Voltage-Withstand Test	UL 1363, 2ed. Cls. 23	The insulation and spacings shall withstand the dielectric voltage withstand test without breakdown for a period of 1 min when a test voltage of 1250Vac is applied between: a) Live parts and accessible metal parts b) Live parts of different polarity.
16. Accessibility of Live Parts	Visual Check	The electrical parts shall be located or enclosed so that persons are protected against inadvertent contact with uninsulated live parts.
17. Strain Relief	UL 1363, Cls 30.2	The supply cord shall withstand for 1 min without displacement a direct pull of 35lbs.

Test Items	Test Method	Test Requirements
18. Temperature Test	UL 1363, 2ed. Cls. 22	Under maximum loading, the overcurrent protective device shall not open the circuit, the enclosure surface, receptacle contacts and separation of the supply cord shall not attain excessive temperature as follows: - Enclosure Surface: 70°C - Supply Cord: 60°C - Receptacle Contacts: 55°C
19. Grounding Continuity Test	Standard measure	Each product shall be tested to determine that continuity between all blades and pin of attachment plug and end terminal or receptacle of the female connector by using a digital multimeter.
20. Continuity Test	In House Method	Each product shall be tested to determine that continuity between all blades and pin of attachment plug and end terminal or receptacle of the female connector by using a digital multimeter.
Fitness for Use		
21. Functionality Check	Actual Use	To check if the product is able to operate as intended according to the instruction manual.
22. Ease of Installation	Follow directions for installation in Instruction manual	Report relative ease of installation. Report if instructions pertaining to installation are complete and understandable. Parts shall be provided as claimed.
23. Ease of Cleaning	Follow Instructions or Wipe Gently with Damp Cloth	Follow the cleaning instruction. Removable parts shall be replace easily and not causing any safety hazards.
24. Continuous Operation Test	Actual use	Under maximum loading condition for 4 hours, the following shall not occur: Emission of flame, molten metal or growing or flaming particles through any openings; Creation of any openings in the enclosure that result in accessibility of live parts / Ignition of the enclosure.
Additional test		
25. *Chemical & Energy Efficiency test for all electrical items to California	DG-EA065	Shall meet the requirements in DG-EA065 • All products containing CA Prop 65 warning label will be reported as FAILED.
26. Dollar General Certificate of Compliance - Toxics in packaging	Client requirement	Shall provide signed/ chopped document: Dollar General Toxics in Packaging Certificate of Compliance. Client requirement
27. *Volatile organic Substances (VOC)(if applicable)	GC-MS screening/US EPA method 5000 and 8021B / doc review	Product with solvent based-liquid (eg. Adhesive, paints, glues and etc.) shall not contain toxic aromatic compounds and hazard substances. GC-MS screening or US EPA method 5000 and 8021B In lieu of testing, test report can be submitted if dated within 1 year.

* Additional Charge Item.

Testing Charge & Sample Size & Turnaround Time

Turnaround time	7 working day	
Sample size	3 pieces	
Testing charge :		Sample size
Basic charge:	USD 250	
Additional charge:		
Chemical & Energy Efficiency test for all electrical items to California DG-EA065(US)	Subject to actual sample	Subject to actual sample

Technical information and related recommendations listed in this specification are proprietary information of Intertek Testing Services. Copying is prohibited without permission of Intertek in written document. This specification does not purport to include all the necessary provisions nor address all of the safety concerns, if any, associated with its use. Compliance with this specification does not of itself confer immunity from legal obligations.

Remark: Additional samples and tests may be necessary subjected to the review by Intertek upon receipt of the sample.

DOLLAR
GENERAL
CONFIDENTIAL

Test Items	Test Method	Test Requirements
Document Review		
1. Labelling – Packaging or product	Uniform Labelling Regulation	Distributor's name & Address (City, State & Zip) shall be shown on the packaging
		Product Identification
2. Country of origin marking (If imported)	NAFTA & FTCA / Sect. 5	Country of origin marking shall be provided and clearly indicated to the ultimate purchaser of a product where it is made.
3. Safety listing mark	Document Check	Shall have valid UL or ETL listing or equivalent. Verify listing by NRTL product directory with the sample's listing number and model number.
4. General and Cautionary Markings	UL 817 Cls. 15, 22	A general, cautionary and warning marking intended to inform the user of a potential risk of fire, electrical shock, or injury to persons shall be provided.
5. User Manual / Important Safety Instructions / Assembly Instructions	UL 817 Cls. 23, 35	Instructions and warnings shall be provided in the user manual identifying reasonable foreseeable uses or misuses of the product. It shall also include instructions regarding the installation, use, safety and maintenance.
Construction Check		
6. Packing	Visual	No hazard when removing the packing
7. Parts Inventory	Visual	Shall meet label claims.
8. Workmanship - external	Visual Check	Shall have no major defects such as: - Cracks or breakage on provided accessories - Serious scratches on the external surface - Peeling of rating or caution / warning label
9. Workmanship - internal	Visual Check	Solder connections shall be secured Components shall be reliably mounted on PCB or other proper fixing.
10. Internal Wires	Visual Check	Wireways shall be smooth and entirely free from sharp edges, burrs, fins, moving parts, and the like that may cause abrasion of insulation on conductors. All soldering joints shall be mechanically secured before soldered.
11. Mechanical Assembly	Visual Check	All mechanical parts shall be securely fixed and prevented from turning.
12. Polarization	Visual Check	Switch, fuse and other protective device shall be connected at ungrounded conductors. The polarization of conductors at plug and receptacles shall be matched
13. Cord Type and Length	UL 817	A cord-connected appliance shall be provided with an appropriate type and length of flexible cord per section
Electrical Safety		
14. Component Check	Visual	If listing safety report provided, report any difference of component used in the sample and the listing report. Exclude plastic material, insulation material or other without marking components.
15. Dielectric Voltage Withstand Test	UL 817 Cls. 88	The insulation and spacings shall withstand the dielectric voltage withstand test without breakdown for a period of 1 min when a test voltage of 1250Vac is applied between: a) Live parts and accessible metal parts b) Live parts of different polarity.
16. Accessibility of Live Parts	Visual Check	The electrical parts shall be located or enclosed so that persons are protected against inadvertent contact with uninsulated live parts.
17. Temperature Test	UL 817 Cls. 87	Under maximum current loading, the overcurrent protective device shall not open the circuit, the enclosure surface, receptacle contacts and separation of the supply cord shall not attain excessive temperature rise as follows: - Supply Cord: As per rating of supply cord - Blade of male fitting: 30K
18. Strain Relief	UL 817	A 35 pound (16 kg) weight is to be suspended from the cord for 1 minute so that the force is applied in a direction normal to the plane of the surface containing the cord opening or bushing.

Test Items	Test Method	Test Requirements
19. Continuity of grounding connection	In House Method	The impedance between the point of connection of the equipment grounding means and any accessible metal part shall be less than 0.1 Ω .
20. Continuity Test	In House Method	Each product shall be tested to determine that continuity between all blades and pin of attachment plug and end terminal or receptacle of the female connector by using a digital multimeter.
Fitness for Use		
21. Functionality Check	Actual Use	To check if the product is able to operate as intended according to the instruction manual.
22. Ease of Installation	Follow directions for installation in Instruction manual	Report relative ease of installation. Report if instructions pertaining to installation are complete and understandable. Parts shall be provided as claimed.
23. Ease of Cleaning	Follow Instructions or Wipe Gently with Damp Cloth	Follow the cleaning instruction. Removable parts shall be replace easily and not causing any safety hazards.
24. Continuous Operation Test	Actual use	Under maximum loading condition for 4 hours, the following shall not occur: Emission of flame, molten metal or growing or flaming particles through any openings; Creation of any openings in the enclosure that result in accessibility of live parts / Ignition of the enclosure.
Additional test		
25. *Chemical & Energy Efficiency test for all electrical items to California	DG-EA065	Shall meet the requirements in DG-EA065 • All products containing CA Prop 65 warning label will be reported as FAILED.
26. Dollar General Certificate of Compliance - Toxics in packaging	Client requirement	Shall provide signed/ chopped document: Dollar General Toxics in Packaging Certificate of Compliance. Client requirement
27. *Volatile organic Substances (VOC)(if applicable)	GC-MS screening/US EPA method 5000 and 8021B / doc review	Product with solvent based-liquid (eg. Adhesive, paints, glues and etc.) shall not contain toxic aromatic compounds and hazard substances. GC-MS screening or US EPA method 5000 and 8021B In lieu of testing, test report can be submitted if dated within 1 year.

* Additional Charge Item.

Testing Charge & Sample Size & Turnaround Time

Turnaround time	7 working day	
Sample size	3 pieces	
Testing charge :		Sample size
Basic charge:	USD 250	
Additional charge:		
Chemical & Energy Efficiency test for all electrical items to California DG-EA065(US)	Subject to actual sample	Subject to actual sample

Remark: Additional samples and tests may be necessary subjected to the review by Intertek upon receipt of the sample.

Test Items	Test Method	Requirement
Document Review		
1. Labelling – Packaging or product	Uniform Packaging and Labelling Regulation	Distributor's Name & Address (City, State & Zip) Product Identification
2. Country of origin marking (If imported)	NAFTA & FTCA / Sect. 5	Country Of Origin (If Imported)
3. Safety Certification Mark	Visual	Shall have valid UL or ETL listing. Verify listing by NRTL product directory with the sample's listing number and model number.
4. User Manual / Important Safety Instructions / Assembly Instructions	UL 60950-1 Clause 1.7	Instructions and warnings shall be provided in the user manual identifying reasonable foreseeable uses or misuses of the product. It shall also include instructions regarding the installation, use, safety and maintenance.
5. General and Cautionary Markings	UL 60950-1 Clause 1.7	A general, cautionary and warning marking intended to inform the user of a potential risk of fire, electrical shock, or injury to persons shall be provided.
6. Warning Markings for Household/Home Office Document Shredders	UL 60950-1 / CSA C22.2 NO. 60950-1, Cls. NAF.1.7.18	Symbols alerting the user to the following considerations shall be provided adjacent to the document feed opening: - product is not intended for use by children (product is not a toy) - avoid touching the document feed opening with hands - avoid clothing touching the document feed opening - avoid hair touching the document feed opening - keep aerosol products away (for products incorporating a universal (brush) motor only) symbol  shall be marked to alert the user to the presence of important operating, maintenance instructions User instructions: - explanation of the symbol  - symbol marked above shall be explained in the instructions
Construction Check		
7. Packing	Visual	No hazard when removing the packing
8. Parts Inventory	Visual	Shall meet label claims.
9. Workmanship	Visual	Shall have no major defects such as: - Cracks or breakage on provided accessories - Serious scratches on the external surface - Peeling of rating or caution / warning label
10. Mechanical Assembly	Visual Check	All mechanical parts shall be securely fixed and prevented from turning.
11. Internal Wiring	Visual Check	Wireways shall not allow wires to come in contact with sharp points, edges or moving parts.
12. Plug	UL 60950-1 Clause 3.2.1	The attachment plug of the power supply cord of an appliance intended to be connected to a nominal 120V circuit, and provided with a 15- or 20-ampere general-use receptacle shall be of the 3-wire grounding type.
13. Cord Type and Length	UL 60950-1 Clause 3.2.5.1	A cord-connected appliance shall be provided with an appropriate type and length of flexible cord per section
Electrical Safety		
14. Component Check	Visual	If listing safety report provided, report any difference of component used in the sample and the listing report. Exclude plastic material, insulation material or other without marking components.
15. Dielectric Voltage-Withstand Test	UL 60950-1 Clause 5.2	The insulation and spacing shall withstand the dielectric voltage withstand test without breakdown applied between a live part and any accessible part. - 2000Vac, 1min

Test Items	Test Method	Requirement
16. Accessibility of Live Parts	UL 60950-1 Clause 2.1.1.1	An opening smaller than 1 inch (25.4 mm) in an enclosure is acceptable if a probe, as illustrated in the standard when inserted point first into an opening, cannot be made to touch any uninsulated live part or film-coated wire.
17. Temperature Test	UL 60950-1 Clause 4.5.1	Under normal operating conditions, supporting surface and all accessible surfaces shall not attain excessive temperature as described in the standard. - Handles and knobs: 60°C (metal); 85 °C (plastic) - External surfaces: 70°C (metal); 95 °C (plastic)
18. Strain Relief	UL 60950-1	Strain relief shall be provided to prevent a mechanical stress on a flexible cord from being transmitted to terminals, splices, or interior wiring.
19. Stability Test	UL 60950-1	The appliance is to be placed on a horizontal support and tilted in the most unfavorable direction through an angle per section. The results are considered to be acceptable if the appliance does not overturn.
20. Continuity of grounding connection	UL 60950-1	The resistance between the point of connection of the equipment-grounding means at or within the appliance and any other point in the grounding circuit of the appliance shall not exceed 0.1 ohms.
21. Accessibility of Moving Parts	UL 60950-1 / CSA C22.2 NO. 60950-1 Clause NAF.4.4.2	The articulate accessible probe (figure NAF.1) shall not contact hazardous moving parts. After any mechanical enclosures or guards that are removable without the use of tool shall be removed. The accessibility probe/wedge (figure NAF.2 and NAF.3) shall not contact hazardous moving parts with the following forces applies, - Strip-cut type shredder: 45 N - Cross-cut type shredder: 90 N
Fitness for Use		
22. Functional Check	Actual Use	All the major features shall be matched with the installation and use instructions and claims made on the packaging, with no inaccurate or misleading statements about the product, or any other user-friendliness problems.
23. Ease of Installation	Follow directions for installation in Instruction manual	Report relative ease of installation. Report if instructions pertaining to installation are complete and understandable. Parts shall be provided as claimed.
24. Ease of Cleaning	Follow Instructions or Wipe Gently with Damp Cloth	Follow the cleaning instruction. Removable parts shall be replaced easily and not causing any safety hazards.
Additional test		
25. *Chemical & Energy Efficiency test for all electrical items to California	DG-EA065	Shall meet the requirements in DG-EA065 • All products containing CA Prop 65 warning label will be reported as FAILED.
26. Dollar General Certificate of Compliance - Toxics in packaging	Client requirement	Shall provide signed/ chopped document: Dollar General Toxics in Packaging Certificate of Compliance. Client requirement
27. *Volatile organic Substances (VOC)(if applicable)	GC-MS screening/US EPA method 5000 and 8021B / doc review	Product with solvent based-liquid (eg. Adhesive, paints, glues and etc.) shall not contain toxic aromatic compounds and hazard substances. GC-MS screening or US EPA method 5000 and 8021B In lieu of testing, test report can be submitted if dated within 1 year.

* Additional charge

Testing Charge & Sample Size & Turnaround Time

Technical information and related recommendations listed in this specification are proprietary information of Intertek Testing Services. Copying is prohibited without permission of Intertek in written document. This specification does not purport to include all the necessary provisions nor address all of the safety concerns, if any, associated with its use. Compliance with this specification does not of itself confer immunity from legal obligations.



Turnaround time	7 working day	
Sample size	2 pieces	
Testing charge :		Sample size
Basic charge:	USD 250	
Additional charge:		
Chemical & Energy Efficiency test for all electrical items to California DG-EA065(US)	Subject to actual sample	Subject to actual sample

Remark: Additional samples and tests may be necessary subjected to the review by Intertek upon receipt of the sample.

DOLLAR
GENERAL
CONFIDENTIAL

Test requirements	Test Method	Requirement
Document Review		
1. Labelling – Packaging or product	Uniform Packaging and Labelling Regulation	Distributor's Name & Address (City, State & Zip)
		Product Identification
2. Country of origin marking (If imported)	NAFTA & FTCA / Sect. 5	Country Of Origin (If Imported)
3. Safety Certification Mark	Visual	The provided UL or ETL Listing safety mark shall be validated.
4. User Manual / Important Safety Instructions / Assembly Instructions	UL 508	Instructions and warnings shall be provided in the user manual identifying reasonable foreseeable uses or misuses of the product. It shall also include instructions regarding the installation, use, safety and maintenance.
5. General and Cautionary Markings	UL 508	A general, cautionary and warning marking intended to inform the user of a potential risk of fire, electrical shock, or injury to persons shall be provided.
Construction Check		
6. Packing	Visual	No hazard when removing the packing
7. Parts Inventory	Visual	Shall meet label claims.
8. Workmanship	Visual	Shall have no major defects such as: - Cracks or breakage on provided accessories - Serious scratches on the external surface - Peeling of rating or caution / warning label
9. Mechanical Assembly	Visual Check	All mechanical parts shall be securely fixed and prevented from turning.
10. Internal Wiring	Visual Check	Wireways shall not allow wires to come in contact with sharp points, edges or moving parts.
11. Plug	UL 508	The attachment plug of an appliance intended to be connected to a nominal 120 volt circuit shall be a polarized type. The connections to the attachment plug shall be in accordance per section.
12. Cord Type and Length	UL 508	A cord-connected appliance shall be provided with an appropriate type and length of flexible cord per section
Electrical Safety		
13. Dielectric Voltage-Withstand Test	UL 508	An appliance shall be capable of withstanding for 1 min when a test voltage of 1000 VAC is applied between live parts and accessible metal parts, without an indication of unacceptable performance.
14. Accessibility of Live Parts	UL 508	An opening smaller than 1 inch (25.4 mm) in an enclosure is acceptable if a probe of standard when inserted point first into an opening, cannot be made ot touch any uninsulated live part or film-coated wire.
15. Temperature Test	UL 508	Under normal operating conditions, supporting surface and all accessible surfaces shall not attain excessive temperature rise as described in the standard.
16. Strain Relief	UL 508	Strain relief shall be provided to prevent a mechanical stress on a flexible cord from being transmitted to terminals, splices, or interior wiring.
17. Stability Test	UL 508	A portable appliance overturns when placed on a plane inclined at an angle of 10 degrees from the horizontal; or tipped through an angle of 10 degrees from an at-rest position on a horizontal plane. A risk of injury to persons shall not result.
18. Grounding	UL 508	If a grounding means is provided, whether required or not, it shall be consist of an equipment grounding conductor in the cord.
19. Continuity Test	In House Method	Each product shall be tested to determine that continuity between all blades and pin of attachment plug and end terminal or receptacle of the female connector by using a digital multimeter.
Fitness for Use		

Technical information and related recommendations listed in this specification are proprietary information of Intertek Testing Services. Copying is prohibited without permission of Intertek in written document. This specification does not purport to include all the necessary provisions nor address all of the safety concerns, if any, associated with its use. Compliance with this specification does not of itself confer immunity from legal obligations.

Test requirements	Test Method	Requirement
20. Functional Check	Actual Use	All the major features shall be matched with the installation and use instructions and claims made on the packaging, with no inaccurate or misleading statements about the product, or any other user-friendliness problems.
Additional test		
21. *Chemical & Energy Efficiency test for all electrical items to California	DG-EA065	Shall meet the requirements in DG-EA065 • All products containing CA Prop 65 warning label will be reported as FAILED.
22. Dollar General Certificate of Compliance - Toxics in packaging	Client requirement	Shall provide signed/ chopped document: Dollar General Toxics in Packaging Certificate of Compliance. Client requirement
23. *Volatile organic Substances (VOC)(if applicable)	GC-MS screening/US EPA method 5000 and 8021B / doc review	Product with solvent based-liquid (eg. Adhesive, paints, glues and etc.) shall not contain toxic aromatic compounds and hazard substances. GC-MS screening or US EPA method 5000 and 8021B In lieu of testing, test report can be submitted if dated within 1 year.

* Additional charge

Testing Charge & Sample Size & Turnaround Time

Turnaround time	7 working day	
Sample size	2 pieces	
Testing charge :		Sample size
Basic charge:	USD 150	
Additional charge:		
Chemical & Energy Efficiency test for all electrical items to California DG-EA065(US)	Subject to actual sample	Subject to actual sample

Remark: Additional samples and tests may be necessary subjected to the review by Intertek upon receipt of the sample.

- 1) Additional samples and tests may be necessary subjected to the review by Intertek upon receipt of the sample.
- 2) Different UL standard comply with these kind of products depend on the features and outlook of it. The applicable UL standard will be advised when received the real sample of this kind of product

Test requirements	Test Method / Principle	Requirement
Document Review		
1. Labelling – Packaging or product	Uniform Labelling Regulation	Distributor's Name & Address (City, State & Zip)
		Product Identification
2. Country of origin marking (If imported)	NAFTA & FTCA / Sect. 5	Country Of Origin (If Imported)
3. Safety Certification Mark	Visual	The provided UL or ETL Listing safety mark shall be validated.
4. General and Cautionary Markings	UL 498A	A general, cautionary and warning marking intended to inform the user of a potential risk of fire, electrical shock, or injury to persons shall be provided.
5. User Manual / Important Safety Instructions / Assembly Instructions	UL 498A	Instructions and warnings shall be provided in the user manual identifying reasonable foreseeable uses or misuses of the product. It shall also include instructions regarding the installation, use, safety and maintenance.
Construction Check		
6. Packing	Visual Check	No hazard when removing the packing
7. Parts Inventory	Visual Check	Shall meet label claims.
8. Workmanship	Visual Check	Shall have no major defects such as: - Cracks or breakage on provided accessories - Serious scratches on the external surface - Peeling of rating or caution / warning label
9. Mechanical Assembly	Visual Check	All mechanical parts shall be securely fixed and prevented from turning.
10. Internal Wiring	Visual Check	Wireways shall not allow wires to come in contact with sharp points, edges or moving parts.
11. Plug	Visual Check	The attachment plug of the power supply cord of an appliance intended to be connected to a nominal 120V circuit, and provided with a 15- or 20-ampere general-use receptacle shall be of the 3-wire grounding type.
Electrical Safety		
12. Dielectric Voltage-Withstand Test	UL 498A	An appliance shall be capable of withstanding for 1 min when a test voltage of 2000 VAC is applied between live parts and accessible metal parts, without an indication of unacceptable performance.
13. Accessibility of Live Parts	UL 498A	An opening smaller than 1 inch (25.4 mm) in an enclosure is acceptable if a probe, as illustrated in the standard when inserted point first into an opening, cannot be made to touch any uninsulated live part or film-coated wire.
14. Temperature Test	UL 498A	Under normal operating conditions, supporting surface and all accessible surfaces shall not attain excessive temperature as described in the standard.
15. Continuity of grounding connection	UL 498A	The resistance between the point of connection of the equipment-grounding means at or within the appliance and any other point in the grounding circuit of the appliance shall not exceed 0.1 ohms.
16. Continuity Test	In House Method	Each product shall be tested to determine that continuity between all blades and pin of attachment plug and end terminal or receptacle of the female connector by using a digital multimeter.
Fitness for Use Evaluation		
17. Functional Check	Actual Use	All the major features shall be matched with the installation and use instructions and claims made on the packaging, with no inaccurate or misleading statements about the product, or any other user-friendliness problems.

Test requirements	Test Method / Principle	Requirement
18. Ease of Installation	Follow directions for installation in Instruction manual	Report relative ease of installation. Report if instructions pertaining to installation are complete and understandable. Parts shall be provided as claimed.
19. Ease of Cleaning	Follow Instructions or Wipe Gently with Damp Cloth	Follow the cleaning instruction. Removable parts shall be replaced easily and not causing any safety hazards.
20. Continuous Operation Test	Actual use	Under maximum loading condition for 4 hours, the following shall not occur: Emission of flame, molten metal or growing or flaming particles through any openings; Creation of any openings in the enclosure that result in accessibility of live parts / Ignition of the enclosure.
Additional test		
21. *Chemical & Energy Efficiency test for all electrical items to California	DG-EA065	Shall meet the requirements in DG-EA065 • All products containing CA Prop 65 warning label will be reported as FAILED.
22. Dollar General Certificate of Compliance - Toxics in packaging	Client requirement	Shall provide signed/ chopped document: Dollar General Toxics in Packaging Certificate of Compliance. Client requirement
23. *Volatile organic Substances (VOC)(if applicable)	GC-MS screening/US EPA method 5000 and 8021B / doc review	Product with solvent based-liquid (eg. Adhesive, paints, glues and etc.) shall not contain toxic aromatic compounds and hazard substances. GC-MS screening or US EPA method 5000 and 8021B In lieu of testing, test report can be submitted if dated within 1 year.

* Additional Charge Item.

Testing Charge & Sample Size & Turnaround Time

Turnaround time	7 working day	
Sample size	3 pieces	
Testing charge :		Sample size
Basic charge:	USD 250	
Additional charge:		
Chemical & Energy Efficiency test for all electrical items to California DG-EA065(US)	Subject to actual sample	Subject to actual sample

Remark: Additional samples and tests may be necessary subjected to the review by Intertek upon receipt of the sample.

Test requirements	Test Method / Principle	Requirement
Document Review		
1. Labelling – Packaging or product	Uniform Packaging and Labelling Regulation	Distributor's Name & Address (City, State & Zip) Product Identification
2. Country of origin	NAFTA & FTCA / Sect. 5	Shall mark with Country Of Origin (If Imported)
3. Safety Certification Mark	Visual Check	Shall have valid UL or ETL listing. Verify listing by NRTL product directory with the sample's listing number and model number.
4. General and Cautionary Markings	UL 917 Clause 43	Marking shall include at least the following, - Rated voltage - Rated current with watts, horsepower, motor current or volt-amperes - AC or DC - Manufacturer's name or trademark - "Resistance only" (for non-inductive resistance loads) - "Tungsten" (for tungsten-filament-lamp loads) - "Inductive" (for high inductive loads) - "Pilot duty" (for magnet-coil load)
5. User Manual / Important Safety Instructions / Assembly Instructions	Visual Check	Instructions and warnings shall be provided in the user manual identifying reasonable foreseeable uses or misuses of the product. It shall also include instructions regarding the installation, use, safety and maintenance.
6. FCC part 15 rules	Visual Check	FCC part 15 report shall be provided for verification if the operating frequency > 9kHz for AC, or operating frequency > 1.705Hz for Battery operated product.
7. FCC Part 15 marking and instruction	Visual Check	Marking shall include, - "This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation." Instruction manual shall include, - "Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment." - "NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: ■ Reorient or relocate the receiving antenna. ■ Increase the separation between the equipment and receiver. ■ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. ■ Consult the dealer or an experienced radio/TV technician for help."
Construction Check		
8. Packing	Visual Check	No hazard when removing the packing
9. Parts Inventory	Visual Check	Shall meet label claims.

Technical information and related recommendations listed in this specification are proprietary information of Intertek Testing Services. Copying is prohibited without permission of Intertek in written document. This specification does not purport to include all the necessary provisions nor address all of the safety concerns, if any, associated with its use. Compliance with this specification does not of itself confer immunity from legal obligations.

Test requirements	Test Method / Principle	Requirement
10. Workmanship	Visual Check	Shall have no major defects such as: - Cracks or breakage on provided accessories - Serious scratches on the external surface - Peeling of rating or caution / warning label
11. Mechanical Assembly	Visual Check	All mechanical parts shall be securely fixed and prevented from turning.
12. Internal Wiring	Visual Check	Wireways shall not allow wires to come in contact with sharp points, edges or moving parts.
13. Plug	UL 917 Clause 17	The plug shall be 3-wire, grounded type or a 2-wire, polarized type. If the integral blades of a plug-in switch are - non polarized, the receptacles provided shall be non polarized - polarized, the receptacles provided shall be polarized - grounding type, the receptacles provided shall be grounding type
14. Cord Type and Length	UL 917 Clause 15	A cord-connected appliance shall be provided with an appropriate type and length of flexible cord per section Size: ≥ 18 AWG Type: $\geq$ SP-2 Length: ≥ 18 inch and < 10 ft
15. Polarization	Visual Check	Fuse and switches shall be connected to the un-grounded conductor of the power supply Screw shell of lampholder shall be connected to the grounded conductor of the power supply.
Electrical Safety		
16. Component Check	Visual Check	If listing safety report provided, report any difference of component used in the sample and the listing report. Exclude plastic material, insulation material or other without marking components.
17. Dielectric Voltage-Withstand Test	UL 917 Clause 32	The insulation and spacing shall withstand the dielectric voltage withstand test without breakdown applied between a live part and any accessible part. - 1240Vac, 1 min
18. Continuity of grounding connection	UL 917 Clause 36	All exposed dead metal parts that are exposed to contact during any servicing operation, including maintenance and repair, and that can become energized shall be electrically connected to the grounding terminal and with earth resistance not more than 0.1 Ohm.
19. Accessibility of Live Parts	UL 917 Clause 6.1.3	An opening smaller than 1 inch (25.4 mm) in an enclosure is acceptable if a probe, as illustrated in the standard when inserted point first into an opening, cannot be made to touch any uninsulated live part or film-coated wire.
20. Temperature Test	UL 917 Clause 26	Under normal operating condition, the accessible parts shall not attain excessive temperature as follows: - Cord – 35 °C - Polymeric material used as decorative parts shall not melt or deform in such a way as to interfere with normal operation of the product.
21. Strain Relief	UL 917 Clause 37	The product shall be provided with strain relief so that a pull of 35 lbf (156 N) exerted on the power supply cord is not transmitted directly to a terminal splice, or interior wiring of the unit.
Fitness for Use Evaluation		
22. Functional Check	Actual Use	All the major features shall be matched with the installation and use instructions and claims made on the packaging, with no inaccurate or misleading statements about the product, or any other user-friendliness problems.

Test requirements	Test Method / Principle	Requirement
23. Ease of Installation	Actual Use	Follow directions for installation in Instruction manual. Report relative ease of installation. Report if instructions pertaining to installation are complete and understandable. Parts shall be provided as claimed.
24. Ease of Cleaning	Actual Use	Follow the cleaning instruction or wipe gently with damp cloth. Removable parts shall be replaced easily and not causing any safety hazards.
Additional test		
25. *Chemical & Energy Efficiency test for all electrical items to California	DG-EA065	Shall meet the requirements in DG-EA065 • All products containing CA Prop 65 warning label will be reported as FAILED.
26. Dollar General Certificate of Compliance - Toxics in packaging	Client requirement	Shall provide signed/ chopped document: Dollar General Toxics in Packaging Certificate of Compliance. Client requirement
27. *Volatile organic Substances (VOC)(if applicable)	GC-MS screening/US EPA method 5000 and 8021B / doc review	Product with solvent based-liquid (eg. Adhesive, paints, glues and etc.) shall not contain toxic aromatic compounds and hazard substances. GC-MS screening or US EPA method 5000 and 8021B In lieu of testing, test report can be submitted if dated within 1 year.

* Additional Charge Item.

Testing Charge & Sample Size & Turnaround Time

Turnaround time	7 working day	
Sample size	3 pieces	
Testing charge :		Sample size
Basic charge:	USD 250	
Additional charge:		
Chemical & Energy Efficiency test for all electrical items to California DG-EA065(US)	Subject to actual sample	Subject to actual sample

Remark: Additional samples and tests may be necessary subjected to the review by Intertek upon receipt of the sample.

Test requirements	Test Method / Principle	Requirement
Document Review		
1. Labelling – Packaging or product	Uniform Packaging and Labelling Regulation	Distributor's Name & Address (City, State & Zip) Product Identification
2. Country of origin	NAFTA & FTCA / Sect. 5	Shall mark with Country Of Origin (If Imported)
3. Safety Certification Mark	Visual	Shall have valid UL or ETL listing. Verify listing by NRTL product directory with the sample's listing number and model number.
4. General and Cautionary Markings	UL 773A Clause 37	The product shall be marked with - Manufacturer's name, trade name, or trademark - model number - electrical ratings - date code - other safety markings required by the standard
5. User Manual / Important Safety Instructions / Assembly Instructions	UL 773A Clause 38	Instructions and warnings shall be provided in the user manual identifying reasonable foreseeable uses or misuses of the product. It shall also include instructions regarding the installation, use, safety and maintenance.
6. FCC part 15 rules	Visual Check	FCC part 15 report shall be provided for verification if the operating frequency > 9kHz for AC, or operating frequency > 1.705Hz for Battery operated product.
7. FCC Part 15 marking and instruction	Visual Check	Marking shall include, - "This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation." Instruction manual shall include, - "Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment." - "NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: ■ Reorient or relocate the receiving antenna. ■ Increase the separation between the equipment and receiver. ■ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. ■ Consult the dealer or an experienced radio/TV technician for help."
8. Parts Inventory	Visual Check	Shall meet label claims.
Construction Check		
9. Packing	Visual Check	No hazard when removing the packing
10. Workmanship	Visual Check	Shall have no major defects such as: - Cracks or breakage on provided accessories - Serious scratches on the external surface - Peeling of rating or caution / warning label

Technical information and related recommendations listed in this specification are proprietary information of Intertek Testing Services. Copying is prohibited without permission of Intertek in written document. This specification does not purport to include all the necessary provisions nor address all of the safety concerns, if any, associated with its use. Compliance with this specification does not of itself confer immunity from legal obligations.

Test requirements	Test Method / Principle	Requirement
11. Mechanical Assembly	Visual Check	All mechanical parts shall be securely fixed and prevented from turning.
12. Internal Wiring	Visual Check	Wireways shall not allow wires to come in contact with sharp points, edges or moving parts.
13. Plug	Visual Check	The plug shall be 3-wire, grounded type or a 2-wire, polarized type.
14. Cord Type and Length	UL 773A Clause 8.3	A cord-connected appliance shall be provided with an appropriate type and length of flexible cord per section Size: ≥ 18 AWG Type: $\geq$ SPT-2
15. Polarization	Visual Check	Fuse and switches shall be connected to the un-grounded conductor of the power supply Screw shell of lampholder shall be connected to the grounded conductor of the power supply.
Electric Safety		
16. Component Check	Visual Check	If listing safety report provided, report any difference of component used in the sample and the listing report. Exclude plastic material, insulation material or other without marking components.
17. Dielectric Voltage-Withstand Test	UL 773A Clause 25	The insulation and spacing shall withstand the dielectric voltage withstand test without breakdown applied between a live part and any accessible part. - 1240Vac, 1 min
18. Accessibility of Live Parts	UL 773A Clause 4.6	An opening smaller than 1 inch (25.4 mm) in an enclosure is acceptable if a probe, as illustrated in the standard when inserted point first into an opening, cannot be made to touch any uninsulated live part or film-coated wire.
19. Temperature Test	UL 773A Clause 21	Under normal operating conditions, supporting surface and all accessible surfaces shall not attain excessive temperature as described in the standard. - Polymeric material shall not melt or deform in such a way as to interfere with normal operation of the product.
20. Strain Relief	UL 773A Clause 34.1	Strain relief shall be provided to prevent a mechanical stress on a flexible cord from being transmitted to terminals, splices, or interior wiring. Shall withstand 35 lb, 1 minute.
21. Continuity of grounding connection	In house method	The resistance between the point of connection of the equipment-grounding means at or within the appliance and any other point in the grounding circuit of the appliance shall not exceed 0.1 ohms.
Fitness for Use		
22. Functional Check	Actual Use	All the major features shall be matched with the installation and use instructions and claims made on the packaging, with no inaccurate or misleading statements about the product, or any other user-friendliness problems.
23. Ease of Installation	Follow directions for installation in Instruction manual	Report relative ease of installation. Report if instructions pertaining to installation are complete and understandable. Parts shall be provided as claimed.
24. Ease of Cleaning	Follow Instructions or Wipe Gently with Damp Cloth	Follow the cleaning instruction. Removable parts shall be replaced easily and not causing any safety hazards.
Additional test		
25. *Chemical & Energy Efficiency test for all electrical items to California	DG-EA065	Shall meet the requirements in DG-EA065 • All products containing CA Prop 65 warning label will be reported as FAILED.

Test requirements	Test Method / Principle	Requirement
26. Dollar General Certificate of Compliance - Toxics in packaging	Client requirement	Shall provide signed/ chopped document: Dollar General Toxics in Packaging Certificate of Compliance. Client requirement
27. *Volatile organic Substances (VOC)(if applicable)	GC-MS screening/US EPA method 5000 and 8021B / doc review	Product with solvent based-liquid (eg. Adhesive, paints, glues and etc.) shall not contain toxic aromatic compounds and hazard substances. GC-MS screening or US EPA method 5000 and 8021B In lieu of testing, test report can be submitted if dated within 1 year.

* Additional Charge Item.

Testing Charge & Sample Size & Turnaround Time

Turnaround time	7 working day
Sample size	3 pieces
Testing charge :	
Basic charge:	USD 250
Additional charge:	
Chemical & Energy Efficiency test for all electrical items to California DG-EA065(US)	Subject to actual sample
	Subject to actual sample

Remark: Additional samples and tests may be necessary subjected to the review by Intertek upon receipt of the sample.

GENERAL
CONFIDENTIAL

Test Item	Test Method	Requirement
Document Review		
1. Labeling – Packaging or product	Uniform package and labeling regulations	Distributor's Name & Address (City, State & Zip) Product Identification
2. Country of origin	NAFTA & FTCA / Sect. 5	Country Of Origin (If Imported)
3. Safety Certification Mark	Visual	Shall have valid UL or ETL listing. Verify listing by NRTL product directory with the sample's listing number and model number.
4. General and Cautionary Markings	UL 60950-1 Cl. 1.7	A general, cautionary and warning marking intended to inform the user of a potential risk of fire, electrical shock, or injury to persons shall be provided. Marking shall contain at least - Manufacturer's name or trade-mark or identification mark - Manufacturer's model or type reference - Rated voltage (for AC product) - Rated frequency (for AC product) - Rated current (for AC product) - Class II symbol (for class II equipment only)
5. User Manual / Important Safety Instructions / Assembly Instructions	UL 60950-1 Cl. 1.7.2	Instructions and warnings shall be provided in the user manual identifying reasonable foreseeable uses or misuses of the product. It shall also include instructions regarding the installation, use, safety and maintenance. For product provided with AC adaptor, the instruction shall state that the socket outlet shall be installed near the equipment and shall be easily accessible.
6. FCC part 68	Visual	Shall provide valid FCC certificate and report for verification.
7. FCC Part 68 marking and instruction	Visual	Marking shall include, - US: AAAEQ##TXXX - AAA : responsible party's grantee code - EQ : equipment code - ## : ringer equivalence number - T : ringer type - XXX : product identifier - "HAC" (for telephone only)
8. FCC part 15	Visual	Shall provide FCC part 15C report for verification.

Test Item	Test Method	Requirement
9. FCC Part 15 marking and instruction	Visual	Marking shall include, - FCC ID - "This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation." Instruction manual shall include, - "Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment." - "NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: ■ Reorient or relocate the receiving antenna. ■ Increase the separation between the equipment and receiver. ■ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. ■ Consult the dealer or an experienced radio/TV technician for help."
Construction Check		
10. Packing	Visual	No hazard when removing the packing
11. Parts Inventory	Visual	Shall meet label claims.
12. Workmanship	Visual	Shall have no major defects such as: - Cracks or breakage on provided accessories - Serious scratches on the external surface - Peeling of rating or caution / warning label
13. Mechanical Assembly	Visual Check	All mechanical parts shall be securely fixed and prevented from turning.
14. Internal Wiring	Visual Check	Wireways shall not allow wires to come in contact with sharp points, edges or moving parts.
15. Plug	UL 60950-1 Cl. 3.2.1	The attachment plug shall have a current rating no lower than 125% of the current drawn by the apparatus under normal operating conditions and a voltage rating appropriate for the rated voltage for the apparatus.
16. Cord Type and Length	UL 60950-1 Cl. 3.2.5.1	A cord-connected appliance shall be provided with an appropriate type and length of flexible cord per section
Electrical Safety		
17. Component Check	Visual	If listing safety report provided, report any difference of component used in the sample and the listing report. Exclude plastic material, insulation material or other without marking components.
18. Dielectric Voltage Withstand Test	UL 60950-1 Cl. 5.2	The electric strength shall be adequate between telephone line and accessible parts. Mains to handset : 1500Vac Mains to enclosure : 1000Vac Telephone line to handset : 1500Vac Telephone line to enclosure : 1000Vac

Test Item	Test Method	Requirement
19. Accessibility of Live Parts	UL 60950-1 Cl. 2.1.1.1	To determine whether a HAZARDOUS LIVE part is ACCESSIBLE, the jointed test finger according to test probe B of IEC 61032 Figure 14, is pushed against the enclosure or inserted through any openings of the enclosure, including openings in the bottom, without appreciable force.
20. Temperature Test	UL 60950-1 Cl. 4.5 (Mod)	Record the maximum operating temperature of enclosures (Mod. = Accessible surfaces only), which shall not exceed the following requirements: Enclosure – 70°C Knobs - 60°C Handset - 50°C
21. Strain Relief	UL 60950-1 Cl. 3.2.6	Strain relief shall be provided to prevent a mechanical stress on a flexible cord from being transmitted to terminals, splices, or interior wiring.
22. Power consumption	In-house method	If AC adaptor used, power consumption of the product shall not exceed power output of the AC adaptor.
23. Battery reverse polarity	UL 60950-1 Cl. 4.3.8	Insert battery but with reverse polarity and stabilize for 1 hour. Explosion or chemical leakage shall not occur.
24. Battery overcharge test	UL 60950-1 Cl. 4.3.8	With full charged battery installed and charge for additional 7 hours, explosion or chemical leakage shall not occur.
25. Leakage current	UL 60065 Cl. 9.1.1.1	The leakage current of unit shall be below limits required: - Class I product – less than 3.5mA - Class II product – less than 0.7mA
Fitness for Use		
26. Functional Check	Actual Use	All the major features shall be matched with the installation and use instructions and claims made on the packaging, with no inaccurate or misleading statements about the product, or any other user-friendliness problems.
27. Ease of Installation	Actual Use	Follow directions for installation in Instruction manual. Report relative ease of installation. Report if instructions pertaining to installation are complete and understandable. Parts shall be provided as claimed.
28. Ease of Cleaning	Actual use	Follow Instructions or Wipe Gently with Damp Cloth. Removable parts shall be replaced easily and not causing any safety hazards.
29. Talk Time	In-house method	Record the time of usage for talk mode after fully charged. Shall meet the claims on the user manual.
30. Operating Range	In-house method	The telephone shall not lose link and the sound quality shall not degrade significantly when the handset was used at a distance of 30 feet in door distance from the base unit.
Additional test		
31. Chemical & Energy Efficiency test for all electrical items to California*	DG-EA065	Shall meet the requirements in DG-EA065 • All products containing CA Prop 65 warning label will be reported as FAILED.
32. Dollar General Certificate of Compliance - Toxics in packaging	Client requirement	Shall provide signed/ chopped document: Dollar General Toxics in Packaging Certificate of Compliance. Client requirement

Sample size: 3 sets

Turnaround time: 7 working days

Test charge : 300USD

* For additional charge and other information of Chemical & Energy Efficiency test for all electrical items to California, please see the protocol DG-EA065(US) for details.

Remark: Additional samples and tests may be necessary subjected to the review by Intertek upon receipt of the sample.

Test requirements	Test Method	Requirement
Document Review		
1. Labelling – Packaging or product	Uniform Labelling Regulation	Distributor's Name & Address (City, State & Zip) Product Identification
2. Country of origin marking (If imported)	NAFTA & FTCA / Sect. 5	Country Of Origin (If Imported)
3. Safety Certification Mark	Visual	Shall have valid UL or ETL listing. Verify listing by NRTL product directory with the sample's listing number and model number.
4. Energy Efficiency for Arizona	Visual	Shall meet tier 1 of energy efficiency requirement of section 1605.3 of California Code of Regulations, title 20: division2, chapter 4, article 4. The following shall be provided, a) Test report
5. DOE requirement	10 CFR 430	Shall have valid DOE certification report for verification
6. General Markings	UL 1310 Cls. 51	Class 2 Transformer shall be legibly and permanently marked: a) Manufacturer's name, trade name, or trademark b) A distinctive catalogue or model number, or the equivalent c) The date or other dating period of manufacture not exceeding any three consecutive months d) Rated voltage e) Frequency f) Input in amperes, volt amperes, or watts g) "For Indoor Use Only" h) Caution or warning markings, in English
	UL 60950-1, Cls. 1.7	A general, cautionary and warning marking intended to inform the user of a potential risk of fire, electrical shock, or injury to persons shall be provided. - Maker's or responsible vendor's name or trade mark - model number - other markings required by the standard
7. Cautionary Markings	UL 1310 Cl. 52	Cautionary markings, where required shall be in letters no less than 1/8" high as required. - Dry location units shall be marked "CAUTION" and "Risk of Electric Shock" and the following or equivalent "Dry location use only" or "Do not expose to liquids, vapour or rain". - Battery Chargers shall be marked as required regarding the batteries that are to be charged. - Direct Plug-in units shall be marked "CAUTION", "Risk of Fire or Electric Shock. Do not replace this plug assembly". - Other markings required per section.
	UL 60950-1, Cls. 1.7	A cautionary or warning marking intended to inform the user of a potential risk of fire, electrical shock, or injury to persons shall be provided.
8. User Manual / Important Safety Instructions / Assembly Instructions	UL 1310 Cl. 54 UL 60950-1, Cls. 1.7	Instructions and warnings shall be provided in the user manual identifying reasonable foreseeable uses or misuses of the product. It shall also include instructions regarding the installation, use, safety and maintenance. All accessories shall be described in the user's manual and provided with instructions for proper use
9. Parts Inventory	Visual	Shall meet label claims.
Construction Check		
10. Packing	Visual	No hazard when removing the packing
11. Workmanship	Visual	Shall have no major defects such as: - Cracks or breakage on provided accessories - Serious scratches on the external surface - Peeling of rating or caution / warning label
12. Mechanical Assembly	Visual Check	All mechanical parts shall be securely fixed and prevented from turning.
13. Internal Wiring	Visual Check	Wireways shall not allow wires to come in contact with sharp points, edges or moving parts.

Test requirements	Test Method	Requirement
14. Accessibility of Live Parts	UL 1310, Cls. 16 UL 60950-1, Cls. 2.1.1.1	Inspect for access to live parts after removal of detachable parts
15. Power Cord	UL 1310, Cls. 14.2	The unit shall employ a Type SP-2, SPE-2, SPT-2, SV, SVT, SVT power supply cord. Length shall > 6 feet (1.8 m) except for unit weighing 1 pound (454 g) or less is acceptable if the total length of the input and output cords is 6 feet or more, and the length of input cord is > 3 feet.
	UL 60950-1, Cls. 3.2.1.1, 3.2.5.1	The unit shall be provided with terminals for permanent connection to the AC Mains supply or a non-detachable power supply cord. Power cord cross-sectional area shall not be less than those specified in table 3B.
16. Plug	Visual Check	Plug shall be 3-wire grounding type or 2-wire polarized attachment plug.
Electrical Safety		
17. Component Check	Visual	If listing safety report provided, report any difference of component used in the sample and the listing report. Exclude plastic material, insulation material or other components without marking.
18. Dielectric Strength Test	UL 1310, Cls. 32	Shall withstand for 1 minute without breakdown: a) 1240VAC between 1) The primary circuit and accessible dead metal parts, and 2) The primary and secondary circuit or circuits. b) 500VAC between a secondary circuit and dead metal parts
	UL 60950, Cls. 5.2	Unit shall withstand for 1 minute without breakdown 2000VAC between AC mains and accessible part.
19. Leakage Current Test	UL 1310, Cls. 26	Under rated input voltage, rated loading and thermally stabilized, the measured leakage current shall not exceed a) 0.5mA for portable unit b) 0.75mA for stationary unit
	UL 60950-1, Cls 5.1	The measured value shall not exceed the relevant limits in table 5A.
20. Strain Relief	UL 1310, Cls. 41	Supply cord shall withstand a 35 lbf (156 N) strain for 1 minute. For units employing a flexible output cord, the cord shall subject to a 20 lbf (89N) for 1 minute without damage.
	UL 60950-1, Cls 3.2.6	Power supply cord shall withstand the following pull force for 25 times, 1 second each Mass of equipment (kg) ≤ 1: 30 N 1 < Mass of equipment (kg) ≤ 4: 60 N Mass of equipment (kg) > 4: 100 N
21. Temperature Test	UL 1310 Cl. 33	Surface temperature of any accessible surface should not exceed a temperature rise of more than 90°F (50°C)
	UL 60950-1, Cls. 4.5 (Mod.)	Maximum temperature shall not exceed limits specified in Table 4B part 2. (Modified: accessible parts)
22. Continuity of Grounding Connection	In-house method	All exposed dead metal parts that are exposed to contact during any servicing operation, including maintenance and repair, and that can become energized shall be electrically connected to the grounding terminal and with earth resistance not more than 0.1 Ohm.
23. Direct Plug-In Blade Secureness Test	In-house method	Each blade and the grounding pin, if provided, shall withstand a direct pull of 20 lbf (89 N) for 2 minutes without loosening. The two blades tested together shall also withstand a direct pull of 20 lbs. for 2 minutes without loosening.
24. Impact Test	UL 1310, Cls. 46.2	A sample is to be dropped (free fall) 3 times in succession from a height of 3 feet onto a hardwood surface. After test, the unit shall pass dielectric voltage withstand test.

Test requirements	Test Method	Requirement
	UL 60950-1. Cls. 4.2.6	A sample is to be dropped (free fall) 3 times in succession from a height of 1m onto a hardwood surface. After test, the unit shall pass dielectric voltage withstand test.
Fitness for Use		
25. Functional Check	Actual Use	All the major features shall be matched with the installation and use instructions and claims made on the packaging, with no inaccurate or misleading statements about the product, or any other user-friendliness problems.
26. Ease of Installation	Follow directions for installation in Instruction manual	Report relative ease of installation. Report if instructions pertaining to installation are complete and understandable. Parts shall be provided as claimed.
27. Range of Operation	In-house method	The unit should operate within the voltage range of 106-127 volts.
28. Continuous Operation	Actual use	When used with specific product, under maximum loading condition for 4 hours, the following shall not occur: - Function failure - Emission of flame - Molten metal or growing or flaming particles through any openings - Creation of any openings in the enclosure that result in accessibility of live parts - Ignition of the enclosure
29. Output Rating	General measure	When used with specific product, the maximum input rating of the product shall not exceed the maximum output rating of the AC adaptor.
Additional test		
30. * Chemical & Energy Efficiency test for all electrical items to California*	DG-EA065	Shall meet the requirements in DG-EA065 • All products containing CA Prop 65 warning label will be reported as FAILED.
31. Dollar General Certificate of Compliance - Toxics in packaging	Client requirement	Shall provide signed/ chopped document: Dollar General Toxics in Packaging Certificate of Compliance. Client requirement
32. *Volatile organic Substances (VOC)(if applicable)	GC-MS screening/US EPA method 5000 and 8021B / doc review	Product with solvent based-liquid (eg. Adhesive, paints, glues and etc.) shall not contain toxic aromatic compounds and hazard substances. GC-MS screening or US EPA method 5000 and 8021B In lieu of testing, test report can be submitted if dated within 1 year.

* Additional Charge Item.



Testing Charge & Sample Size & Turnaround Time

Turnaround time	7 working day	
Sample size	3 pieces	
Testing charge :		Sample size
Basic charge:	USD 250	
Additional charge:		
Chemical & Energy Efficiency test for all electrical items to California DG-EA065(US)	Subject to actual sample	Subject to actual sample

Remark: Additional samples and tests may be necessary subjected to the review by Intertek upon receipt of the sample.

DOLLAR
GENERAL
CONFIDENTIAL

Test requirements	Reference Method	Requirement
Document Review		
1. Labelling – Packaging or product	Uniform Labelling Regulation	Distributor's Name & Address (City, State & Zip) Product Identification
2. Country of origin marking (If imported)	NAFTA & FTCA / Sect. 5	Country Of Origin (If Imported)
3. Safety Certification Mark	Visual	Shall have valid UL or ETL listing. Verify listing by NRTL product directory with the sample's listing number and model number.
4. Marking – General	UL 2438 Cls 42	The following markings shall be legible and readily visible marked on a tag or label; - Electrical Ratings in amps, volts, and watts. - "For temporary outdoor installation and use – Not to exceed 90 days." or equivalent wording. This marking shall be in letters having a minimum height of 1/16 inch (1.6 mm). - "Use only with a fuse rated 15 Amps, 125 Volts." on the surface of the fused plug - Other markings specified in standard
5. Packaging Markings and Instructions	UL 2438 Cls 43	The sample shall contain all of the following or equivalent statements (following the word CAUTION) on the outer surface of the smallest unit package or on a stuffer sheet or tag (or its equivalent): a) "CAUTION – Risk of Fire. Not for permanent installation. Use only with outdoor equipment, Christmas-tree, or other seasonal decorative-lighting products having a total of 12 Ampere maximum. Do not install or use this product for more than a 90-day period." b) "If using Christmas tree or decorative-lighting products that are not marked with an ampere rating, connect no more than 140 screw-base lamps (C7 or C9) or 12 strings with midget (push-in) lamps to this cord set." c) "Cord sets shall be plugged into a GFCI-protected receptacle." d) "If using an outdoor-use cord set for an extended period of time (greater than 90 days) please consider hard wiring a permanent outdoor-use receptacle rated for year-round use in the area that power is needed. Please contact a Licensed electrician for proper installation of permanent wiring." e) "After completion of installation, the connector shall be maintained a minimum of 6 inches above ground."
6. Parts Inventory	Visual	Shall meet label claims.
Construction Check		
7. Packing	Visual	No hazard when removing the packing
8. Workmanship	Visual	Shall have no major defects such as: - Cracks or breakage on provided accessories - Serious scratches on the external surface - Peeling of rating or caution / warning label
9. Mechanical Assembly	Visual Check	All mechanical parts shall be securely fixed and prevented from turning.
10. Internal Wiring	Visual Check	Wireways shall not allow wires to come in contact with sharp points, edges or moving parts.
11. Flexible Cord	UL 2438 Cls 6	The sample shall be of the size and type specified in standard and shall have a minimum flame rating of VW-1 and minimum insulation temperature rating of 105°C (221°F). A product containing more than 3 outlets shall employ either a minimum of 12 AWG flexible cord or 14 AWG flexible cord and an overcurrent protective device.

Test requirements	Reference Method	Requirement
12. Fittings	UL 2438 Cls 7	An attachment plug, cord connector, or current tap, provided on an outdoor seasonal-use cord-connected wiring device shall be rated 15 A, 125 V and of the 2-pole, 3-wire, 5-15 configuration. For sample employing an outlet fitting: a) There shall not be more than a total of 6 outlets (including those provided at the end fittings); and b) The outlet fittings shall be factory-assembled to the flexible cord and shall not be field-rewireable.
13. Drain Openings	UL 2438 Cls 8	An enclosure body that permits water to enter the unit shall be provided with a drain hole.
Electrical Safety		
14. Component Check	Visual	If listing safety report provided, report any difference of component used in the sample and the listing report. Exclude plastic material, insulation material or other components without marking.
15. Leakage Current Test	UL 2438 Cls 18	The leakage current of an outdoor seasonal-use cord-connected wiring device shall not be more than 0.5 mA.
16. Rain Test	UL 2438 Cls 24.2 & 24.4	The enclosure is to be positioned in the focal area of the spray heads so that the greatest quantity of water enters the enclosure. The water pressure is to be maintained at 5 lbs/in ² (34.5 kPa) at each spray head. After test, no water has entered the outdoor seasonal-use cord-connected wiring device and the unit is found to comply with the Dielectric Voltage-Withstand Test UL 817, and the Leakage Current Test, Section 18.
17. Dielectric Voltage-Withstand Test	UL 817 Cls 88	The Sample shall be capable of withstanding without breakdown for a period of 1 minute, the application of a 60-Hz potential of 1250 V between any two conductors.
18. Temperature Test	UL 2438 Cls 36 (Mod.)	The temperature rise of an outlet measured at the points described in 36.2 shall not be more than 30°C (54°F) when the device is carrying its maximum rated current. One sample as-received condition prior to test, temperatures are to be measured by means of thermocouples attached to the wiring terminals or cord connections (Mod. = 1 sample as-received condition prior to test)
19. Strain Relief Test	UL 2438 Cls 23	The assembly of the cord to a fitting shall be capable of withstanding a straight pull of 30 lbf (133N), applied between the fitting and the cord. A pull exerted on a cord shall not be transmitted directly to the terminals of a fitting.
20. Retention of Plugs Tests	UL 2438 Cls 34	The sample subjected to ten conditioning cycles of insertion and withdrawal of a standard solid-blade attachment plug The mating plugs are to have a 1-15P configuration. A pull of 3 lbf (13 N) in a direction perpendicular to the plane of the face of the cord connector and tending to withdraw the plug from the device is then to be applied to the plug for 1 minute. The displacement of the plug shall not be greater than 0.079 inch (2 mm).
21. Mold Stress Relief Test	UL 2438 Cls 15	The devices are to be placed in a circulating air oven maintained at a temperature of 70°C (158°F) for 7 hours. The devices are to be removed from the oven and allowed to cool to room temperature before determining compliance. As a result of temperature conditioning, there shall not be any warpage, shrinkage or other distortion that described in standard.

Test requirements	Reference Method	Requirement
22. Impact Test	UL 2438 Cls 28	The impact is to be produced by dropping or swinging a 2-inch (50.8-mm) diameter steel sphere, weighing 1.18 lbs (0.535 kg) from a height which will produce an impact of 5 ft-lbs (6.8 J). After the test, the sample shall comply with all of the following: a) There shall not be any visible damage to the enclosure of the unit that would result in the exposure of live parts as determined by contact with the accessibility probe illustrated in standard; b) There shall not be any cracking or denting of the enclosure of the unit that would affect the function of any safety controls or constructional features such as overcurrent protective devices, waterseals, or strain relief, or result in the exposure of live parts increasing the risk of injury to persons; c) There shall not be any damage to the enclosure of the unit that would result in an increase in the risk of electric shock as determined by compliance with the Dielectric Voltage-Withstand Test described in the Standard for Cord Sets and Power-Supply Cords, UL 817, and the Leakage Current Test, Section 18.
Fitness for Use		
23. Functional Check	Actual Use	All the major features shall be matched with the installation and use instructions and claims made on the packaging, with no inaccurate or misleading statements about the product, or any other user-friendliness problems.
24. Ease of Installation	Follow directions for installation in Instruction manual	Report relative ease of installation. Report if instructions pertaining to installation are complete and understandable. Parts shall be provided as claimed.
25. Continuous Operation	Actual use	When used with specific product, under maximum loading condition for 4 hours, the following shall not occur: - Function failure - Emission of flame - Molten metal or growing or flaming particles through any openings - Creation of any openings in the enclosure that result in accessibility of live parts - Ignition of the enclosure
Additional test		
26. *Chemical & Energy Efficiency test for all electrical items to California	DG-EA065	Shall meet the requirements in DG-EA065 • All products containing CA Prop 65 warning label will be reported as FAILED.
27. Dollar General Certificate of Compliance - Toxics in packaging	Client requirement	Shall provide signed/ chopped document: Dollar General Toxics in Packaging Certificate of Compliance. Client requirement
28. *Volatile organic Substances (VOC)(if applicable)	GC-MS screening/US EPA method 5000 and 8021B / doc review	Product with solvent based-liquid (eg. Adhesive, paints, glues and etc.) shall not contain toxic aromatic compounds and hazard substances. GC-MS screening or US EPA method 5000 and 8021B In lieu of testing, test report can be submitted if dated within 1 year.

* Additional Charge Item.

Testing Charge & Sample Size & Turnaround Time

Turnaround time	7 working day
Sample size	3 pieces

Technical information and related recommendations listed in this specification are proprietary information of Intertek Testing Services. Copying is prohibited without permission of Intertek in written document. This specification does not purport to include all the necessary provisions nor address all of the safety concerns, if any, associated with its use. Compliance with this specification does not of itself confer immunity from legal obligations.



Testing charge :		Sample size
Basic charge:	USD 300	
Additional charge:		
Chemical & Energy Efficiency test for all electrical items to California DG-EA065(US)	Subject to actual sample	Subject to actual sample

Remark: Additional samples and tests may be necessary subjected to the review by Intertek upon receipt of the sample.

DOLLAR
GENERAL
CONFIDENTIAL

Test requirements	Reference Method	Requirement
Document Review		
1. Labelling – Packaging or product	Uniform Labelling Regulation	Distributor's Name & Address (City, State & Zip) Product Identification
2. Country of origin marking (If imported)	NAFTA & FTCA / Sect. 5	Country Of Origin (If Imported)
3. Safety Certification Mark	Visual	Shall have valid UL or ETL listing. Verify listing by NRTL product directory with the sample's listing number and model number.
4. Markings	UL 1449 Cls 61	A TVSS shall be plainly and permanently marked with: • Manufacturer's Name or Trademark • Distinctive catalog number or equivalent • Electrical rating, • Suppressed voltage rating, • Date of manufacture, • The words "Transient Voltage Surge Suppressor" or "TVSS"
5. Instructions	UL 1449 Cls 62	An instruction provided with the product shall include the following: a) Instructions for installation: Instructions for permanently wired devices shall include minimum and maximum wire length and gauge sizes, the ampacity of the circuit the device is intended for use on, and the internal wiring methods showing location and routing. b) Instructions for mounting. c) An explanation of the purpose and function of any indicator (lights, audio indicators, and similar indicators) features employed on the TVSS. d) The interrupting rating of any required
6. Parts Inventory	Visual	Shall meet label claims.
Construction Check		
7. Packing	Visual	No hazard when removing the packing
8. Workmanship	Visual	Shall have no major defects such as: - Cracks or breakage on provided accessories - Serious scratches on the external surface - Peeling of rating or caution / warning label
9. Mechanical Assembly	Visual Check	All mechanical parts shall be securely fixed and prevented from turning.
10. Internal Wiring	Visual Check	Wireways shall not allow wires to come in contact with sharp points, edges or moving parts.
11. Accessibility of live parts test	UL 1449 Cls 55A.2	An enclosure of a TVSS, which prevents unintentional contact of current-carrying parts or of film-coated magnet wire in the enclosure of a TVSS. As a result of the test, the probes described in standard shall not touch the current-carrying part or magnet wire.
Electrical Safety		
12. Component Check	Visual	If listing safety report provided, report any difference of component used in the sample and the listing report. Exclude plastic material, insulation material or other components without marking.
13. Leakage Current Test	UL 1449 Cls 31	the leakage current of cord-connected or direct-plug-in TVSS shall not be more than 0.5 mA.

Test requirements	Reference Method	Requirement
14. Dielectric Voltage-Withstand Test	UL 1449 Cls 32	A TVSS shall withstand a 60 Hz sinusoidal potential of 1000 V plus twice maximum rated supply voltage without breakdown for 1 minute between the following: a) Uninsulated live metal parts and the enclosure. A nonconductive enclosure is to be wrapped in conductive foil. b) Terminals of opposite polarity. c) Uninsulated live metal parts and accessible dead metal parts. d) Uninsulated live metal parts and grounding contacts of grounding type receptacles. e) Primary and isolated secondary circuits.
15. Strain Relief Test	UL 1449 Cls 46	The strain-relief means provided on the supply cord shall withstand for one minute without displacement a direct pull of 156 N (35 lbf) applied to the cord with the connections within the TVSS disconnected.
16. Over Voltage Test	UL 1449 Cls 36	A TVSS shall withstand an overvoltage of 110 percent of the rated supply voltage, for 7 hours, without evidence of a risk of fire or electric shock. The TVSS is to be connected to a supply source maintained at 110 percent of the rated voltage.
17. Grounding Continuity Test	UL 1449 Cls 38	TVSS provided with means for grounding shall be tested to determine that the impedance between the grounding pin, terminal, or lead and the accessible dead metal parts of the TVSS that are likely to become energized, is not more than 0.1 ohm
18. Drop impact test	UL 1449 Cls 51.2	One unit to be subjected to the impact that results from its being dropped three times (a series) through a distance of 0.91 m (3 feet) from the bottom of the TVSS to strike a concrete surface in the positions most likely to produce adverse results. After subjected the test, the sample shall not a) Creation of any openings in the enclosure that results in accessibility of live parts, when judged in accordance with Accessibility of Live Parts, Section 13. b) Any condition that might affect the safe mechanical performance of the TVSS. c) Any other condition that increases the risk of electric shock.
Fitness for Use		
19. Functional Check	Actual Use	All the major features shall be matched with the installation and use instructions and claims made on the packaging, with no inaccurate or misleading statements about the product, or any other user-friendliness problems.
20. Ease of Installation	Follow directions for installation in Instruction manual	Report relative ease of installation. Report if instructions pertaining to installation are complete and understandable. Parts shall be provided as claimed.
21. Continuous Operation	Actual use	When used with specific product, under maximum loading condition for 4 hours, the following shall not occur: - Function failure - Emission of flame - Molten metal or growing or flaming particles through any openings - Creation of any openings in the enclosure that result in accessibility of live parts - Ignition of the enclosure
22. Switch Endurance Test	Actual use	Operate the switch for 100 cycles with no failure.
Additional test		
23. *Chemical & Energy Efficiency test for all electrical items to California	DG-EA065	Shall meet the requirements in DG-EA065 • All products containing CA Prop 65 warning label will be reported as FAILED.

Technical information and related recommendations listed in this specification are proprietary information of Intertek Testing Services. Copying is prohibited without permission of Intertek in written document. This specification does not purport to include all the necessary provisions nor address all of the safety concerns, if any, associated with its use. Compliance with this specification does not of itself confer immunity from legal obligations.

Test requirements	Reference Method	Requirement
24. Dollar General Certificate of Compliance - Toxics in packaging	Client requirement	Shall provide signed/ chopped document: Dollar General Toxics in Packaging Certificate of Compliance. Client requirement
25. *Volatile organic Substances (VOC)(if applicable)	GC-MS screening/US EPA method 5000 and 8021B / doc review	Product with solvent based-liquid (eg. Adhesive, paints, glues and etc.) shall not contain toxic aromatic compounds and hazard substances. GC-MS screening or US EPA method 5000 and 8021B In lieu of testing, test report can be submitted if dated within 1 year.

* Additional Charge Item.

Testing Charge & Sample Size & Turnaround Time

Turnaround time	7 working day	
Sample size	3 pieces	
Testing charge :		Sample size
Basic charge:	USD 250	
Additional charge:		
Chemical & Energy Efficiency test for all electrical items to California DG-EA065(US)	Subject to actual sample	Subject to actual sample

Remark: Additional samples and tests may be necessary subjected to the review by Intertek upon receipt of the sample.

GENERAL

CONFIDENTIAL

Test requirements	Reference Method	Requirement
Document Review		
1. Labelling – Packaging or product	Uniform Labelling Regulation	Distributor's Name & Address (City, State & Zip) Product Identification
2. Country of origin marking (If imported)	NAFTA & FTCA / Sect. 5	Country Of Origin (If Imported)
3. Safety Certification Mark	Visual	Shall have valid UL or ETL listing. Verify listing by NRTL product directory with the sample's listing number and model number.
4. General Markings	UL 1776, Cls. 112	The following markings shall be legible and readily visible during use: - Manufacturer's name, trademark or etc. - A distinctive (catalog or model) number or the equivalent - Electric rating - Date Code - The maximum rated discharge pressure. - The cleaning solution intended to be used. - The maximum discharge temperature of fluid for which the product intended - Other markings required by standard
5. Cautionary and Warning Markings	UL 1776, Cls. 113	A cautionary or warning marking intended to inform the user of a potential risk of fire, electrical shock, or injury to persons shall be provided.
6. User Manual / Important Safety Instructions / Assembly Instructions	UL 1776, Cls. 114-117	Instructions and warnings shall be provided in the user manual identifying reasonable foreseeable uses or misuses of the product. It shall also include instructions regarding the installation, use, safety and maintenance. All accessories shall be described in the user's manual and provided with instructions for proper use
7. Parts Inventory	Visual	Shall meet label claims.
Construction Check		
8. Packing	Visual	No hazard when removing the packing
9. Workmanship	Visual	Shall have no major defects such as: - Cracks or breakage on provided accessories - Serious scratches on the external surface - Peeling of rating or caution / warning label
10. Mechanical Assembly	Visual Check	All mechanical parts shall be securely fixed and prevented from turning.
11. Internal Wiring	Visual Check	Wireways shall not allow wires to come in contact with sharp points, edges or moving parts.
12. Accessibility of Uninsulated live Parts and Film-Coated Wire	UL 1776, Cls. 15	To reduce the risk of unintentional contact that may involve a risk of electric shock from an uninsulated live part or film-coated wire, an opening in an enclosure shall: a) Be spaced from the opening as specified in standard, if the opening has a minor dimension of 1 inch (25.4 mm) or more, and b) Not be contacted by the probe illustrated in standard, if the opening has a minor dimension (see 15.4) less than 1 inch (25.4 mm).
13. Power Cord	UL 1776 Cls. 16.1.3 & 16.1.6	The flexible cord shall be a Type SJ, SJE, SJO, SJT, SJTO, SJO, or SJTOO for a portable product employing a motor rated 2 horsepower (1492 W) or less. Portable products employing a motor rated more than 2 horsepower and stationary products shall employ Type S, ST, STO, SOO, or STOO flexible cord. For a portable product, the flexible cord shall be at least 35 feet (10.67 m) long. For stationary products, the flexible cord shall be at least 3 feet (0.91 m) long and not longer than 4 feet (1.21 m). The measurement of the length of the flexible cord is to include the attachment plug.
14. Plug	Visual Check	Plug shall be 3-wire grounding type or 2-wire polarized attachment plug.

Technical information and related recommendations listed in this specification are proprietary information of Intertek Testing Services. Copying is prohibited without permission of Intertek in written document. This specification does not purport to include all the necessary provisions nor address all of the safety concerns, if any, associated with its use. Compliance with this specification does not of itself confer immunity from legal obligations.

Test requirements	Reference Method	Requirement
Electrical Safety		
15. Component Check	Visual	If listing safety report provided, report any difference of component used in the sample and the listing report. Exclude plastic material, insulation material or other components without marking.
16. Dielectric Voltage-Withstand Test	UL 1776, Cls. 83	The unit shall withstand the dielectric voltage withstand test without breakdown for a period of 1 min when a test voltage as stated below is applied between a live part and any accessible part. For primary circuit: < 1/2 horsepower and 250 volts or less: 1000VAC >= 1/2 horsepower or more than 250 volts: 1240VAC For secondary circuit: The secondary operates at 251 – 600 volts: 1240VAC The secondary operates at 51 – 250 volts: 1000VAC The secondary operates at 50 volts or less: 500VAC
17. Leakage Current Test	UL 1776, Cls. 77	Under rated input voltage, rated loading and thermally stabilized, the measured leakage current shall not more than: a) 0.5 milliamperes for a portable product, and b) 0.75 milliamperes for a product intended to be fastened in place or located in a designated space, and employing a standard attachment plug rated 20 amperes or less
18. Strain Relief	UL 1776, Cls. 88	The connections of the attached flexible cord within the appliance are to be disconnected. A 35 pound (15.9 kg) weight is to be suspended on the cord and supported by the product so that the strain-relief means will be stressed for 1 minute from any angle that the construction of the product permits. At the point of disconnection of the conductors, there shall be no movement of the cord as to indicate that stress would have resulted on the connections.
19. Surface temperature test	UL 1776, Cls. 67.2	A During the temperature test, the temperature of a surface that may be contacted by the user shall not rise more: Handle or knob grasped for lifting, carrying, or holding: A. Metallic 25 °C 45 °F B. Nonmetallic 35 °C 63 °F Handle, knob, or surface of the enclosure intended to be contacted during normal use but not requiring continuous holding: A. Metallic 35 °C 63 °F B. Nonmetallic 60 °C 108 °F Surface subjected to casual contact: A. Metallic 45 °C 81 °F B. Nonmetallic 70 °C 126 °F
20. Overflow test	UL 1776, Cls. 84.3 (Mod.)	For a product with a reservoir or liquid storage chamber that can be filled to overflowing, the reservoir is to be filled to overflowing with distilled water. Additional distilled water equal to 10 percent of the capacity, but not more than 1 quart, is then to be poured into the reservoir. The sample shall be no wetting of live parts, film-coated wire, or insulation likely to be adversely affected by the liquid involved, and no liquid shall enter a compartment housing field-installed wiring. For a cord-connected product rated 250 volts or less, the leakage current is to be monitored during and after the test (Mod. = Distilled water will be used for the test)

Test requirements	Reference Method	Requirement
21. Grounding	UL 1776, Cls. 21.1, 21.4, 21.5	A product shall have provision for grounding. The following are acceptable means for grounding: a) For a product intended to be permanently connected by a metal-enclosed wiring system, a knockout or equivalent opening in the metal enclosure of the product. b) For a product intended to be permanently connected by a nonmetal-enclosed wiring system, such as nonmetallic-sheathed cable, an equipment grounding terminal or lead. c) For a cord-connected product, an equipment-grounding conductor in the cord. The surface of the insulation of a grounding conductor of a flexible cord shall be green with or without one or more yellow stripes. The grounding conductor of a power-supply cord and any internal wiring connection used for grounding shall be secured such that the connection is not likely to be unintentionally disconnected during any servicing operation. Servicing as mentioned here includes repair of the product by a qualified service person. Solder alone shall not be used for securing a grounding conductor.
22. Enclosures and Guards	UL 1776, Cls. 49	The rotor of a motor or a pulley, belt, gear, fan, or other moving part that could cause injury to persons, shall be enclosed or guarded to reduce the likelihood of unintentional contact therewith.
Fitness for Use		
23. Functional Check	Actual Use	All the major features shall be matched with the installation and use instructions and claims made on the packaging, with no inaccurate or misleading statements about the product, or any other user-friendliness problems.
24. Ease of Installation	Follow directions for installation in Instruction manual	Report relative ease of installation. Report if instructions pertaining to installation are complete and understandable. Parts shall be provided as claimed.
25. Ease of Cleaning	Follow Instructions or Wipe Gently with Damp Cloth	Follow the cleaning instruction. Removable parts shall be replaced easily and not causing any safety hazards.
Additional test		
26. *Chemical & Energy Efficiency test for all electrical items to California	DG-EA065	Shall meet the requirements in DG-EA065 All products containing CA Prop 65 warning label will be reported as FAILED.
27. Dollar General Certificate of Compliance - Toxics in packaging	Client requirement	Shall provide signed/ chopped document: Dollar General Toxics in Packaging Certificate of Compliance. Client requirement
28. *Volatile organic Substances (VOC)(if applicable)	GC-MS screening/US EPA method 5000 and 8021B / doc review	Product with solvent based-liquid (eg. Adhesive, paints, glues and etc.) shall not contain toxic aromatic compounds and hazard substances. GC-MS screening or US EPA method 5000 and 8021B In lieu of testing, test report can be submitted if dated within 1 year.

* Additional Charge Item.

Testing Charge & Sample Size & Turnaround Time

Technical information and related recommendations listed in this specification are proprietary information of Intertek Testing Services. Copying is prohibited without permission of Intertek in written document. This specification does not purport to include all the necessary provisions nor address all of the safety concerns, if any, associated with its use. Compliance with this specification does not of itself confer immunity from legal obligations.

Turnaround time	7 working day	
Sample size	3 pieces	
Testing charge :		Sample size
Basic charge:	USD 300	
Additional charge:		
Chemical & Energy Efficiency test for all electrical items to California DG-EA065(US)	Subject to actual sample	Subject to actual sample

Remark: Additional samples and tests may be necessary subjected to the review by Intertek upon receipt of the sample.

DOLLAR
GENERAL
CONFIDENTIAL

Test requirements	Reference Method	Requirement
Document Review		
1. Labeling – Packaging or product	Uniform Labeling Regulation	Distributor's Name & Address (City, State & Zip) Product Identification
2. Country of origin marking	NAFTA & FTCA / Sect. 5	Country Of Origin (If Imported)
3. FCC part 15	Visual	If the operating frequency over 9kHz for AC operated or 1.705MHz for BO operated product; FCC report shall be provided for checking.
4. FCC Part 15 marking and instruction	Visual	Marking shall include, - "This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation." Instruction manual shall include, - "Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment." - "NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: ■ Reorient or relocate the receiving antenna. ■ Increase the separation between the equipment and receiver. ■ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. ■ Consult the dealer or an experienced radio/TV technician for help."
5. Safety Certification Mark	Visual	Shall have valid UL or ETL listing. Verify listing by NRTL product directory with the sample's listing number and model number.
6. Markings	UL 45 8 th Edition Section 52.1; 52.2-4	The following markings shall be legible and readily visible during use: - Manufacturer's name, trademark or etc. - Model number, type reference or etc. - Electric rating - Date Code - A battery-operated portable tool provided with a user replaceable battery or battery pack shall be marked: " For Use Only With ___ Charger," or the equivalent. The charger may be identified by a catalog number, a series number, or the equivalent. - Other markings required by standard
7. Labeling - Product (Permanent On Product)	Visual	Type (Size) of battery

Test requirements	Reference Method	Requirement
8. Labeling - Product (Permanent On Product)	Visual	Direction of polarity
9. Labeling - Product (Permanent On Product)	Visual	Number and type of batteries required
10. Packaging, Instructions or Product	Visual	For products with more than one battery, must include: "Do not mix old and new batteries. Do not mix alkaline, Standard (Carbon - Zinc), Or Rechargeable (Nickel Cadmium) Batteries."
11. Packaging, Instructions or Product	Visual	If sample is equipped with permanently connected batteries that are not replaceable, a warning shall be provided that states "Do not dispose of this product in fire. Batteries inside this product may explode or leak." or the equivalent.
12. Packaging, Instructions or Product	Visual	If sample is provided with batteries, but the batteries can be removed or replaced, a warning shall be provided That states "Do not dispose of batteries in fire. Batteries may explode or leak." or the equivalent.
13. Mercury-Containing and Rechargeable Battery Management Act Pub. L. 104-142. 13 May 1996. Stat. 110.1333.	Title I, Rechargeable Battery Recycling Act	Cadmium and Lead containing batteries shall bear 3 chasing arrows or comparable recycling symbol and A) Ni-Cd or nickel-cadmium and "BATTERY MUST BE RECYCLED OR DISPOSED OF PROPERLY" B) Pb or "LEAD", "RETURN" and "RECYCLE" and "BATTERY MUST BE RECYCLED" if sealed.
14. Mercury-Containing and Rechargeable Battery Management Act	U.S. Pub. L. 104-142. 13 May 1996. Stat. 110.1333. Mercury Analysis (EPA Guidance, Best Practice Title II)	Batteries larger than button cell shall contain no intentionally added Mercury. No intentionally added Hg is demonstrated in this protocol if testing shows less than 1 ppm (best practice). Batteries of button cell size are allowed small amounts of added mercury, but shall test to less than 25 mg Hg / cell. Testing is required on all included alkaline-manganese batteries, zinc-carbon (Heavy Duty) batteries, and silver-oxide and zinc-air button cells.
15. Mercury Labeling as applicable to Button Cell Battery powered devices. (If Applicable)	Various State Laws, including: <u>VT</u> : Title 10, Chapter 159, Sec. 6621d, <u>RI</u> : Title 23, Chapter 23-24.9, <u>NH</u> : title x, Chapter 149-M, Sec. 149-M: 51- 149-M: 57, <u>CT</u> : Public Act 02-90 <u>NY</u> : Chap 145, Title 21 Ch. 27 2101-2115	(If a button cell is found to have intentionally added mercury, such as by testing at over 1 ppm, RI, CT, NY, and VT require product containing mercury have labeling to indicate the presence of mercury and instructions on how to properly dispose of the product. Requirements vary by state. Registration with IMERC may be required.) Product or packaging for items with button cells found to have intentionally added mercury, that may be distributed to states with Mercury legislation shall be Marked so as to be clearly visible prior to the sale and Product itself shall be marked permanently for the life of the product with the following "Battery Contains Mercury. Do Not Put in Trash. Recycle or Manage as Hazardous Waste." or equivalent. CT and NY further require that the product with button cell batteries that contain Hg to be replaceable. Product with button cells found to have intentionally added mercury that may be distributed to CT or NY shall have the batteries replaceable, allowing for use of common household tools.
16. User Manual / Important Safety Instructions / Assembly Instructions	Visual	Instructions and warnings shall be provided in the user manual identifying reasonable foreseeable uses or misuses of the product. It shall also include instructions regarding the installation, use, safety and maintenance. All accessories shall be described in the user's manual and provided with instructions for proper use
17. Parts Inventory	Visual	Shall meet label claims.

Construction Check		
18. Packing	Visual	No hazard when removing the packing
19. Workmanship	Visual	Shall have no major defects such as: - Cracks or breakage on provided accessories - Serious scratches on the external surface - Peeling of rating or caution / warning label
20. Mechanical Assembly	Visual Check	All mechanical parts shall be securely fixed and prevented from turning.
21. Internal Wiring	Visual Check	Wireways shall not allow wires to come in contact with sharp points, edges or moving parts.
22. Enclosure Strength	Std. Measure	Must withstand a 5 lb static load over 0.2 in ² (DIA.) with no exposure of non-insulated electrical parts
23. Impact Resistance	Std. Measure	Withstand a 1 ft-lb impact with no exposure of non-insulated electrical parts
24. Battery / Charger Type, If Applicable	Visual Check	As claimed
Electrical Safety		
25. Component Check	Visual Check	If listing safety report provided, report any difference of component used in the sample and the listing report. Exclude plastic material, insulation material or other components without marking.
26. Current / Power	UL 1310 4 th Edition Section 35.2	Must not be more than 110% of rating
27. Leakage Current	UL 1310 4 th Edition Section 26	<0.5 mA between surface and ground
28. Dielectric Withstand	UL 1310 4 th Edition Section 32.1	Shall withstand for 1 minute without breakdown: a) One thousand volts AC plus twice the maximum rated voltage between 1) The primary circuit and accessible dead metal parts, and 2) The primary and secondary circuit or circuits. b) One thousand volts AC plus two times the sum of secondary voltages between secondary windings for units described in 26.3 or 28.2.3 c) Five hundred volts AC between a secondary circuit and dead metal parts d) A DC potential of 1.414 times (2 V + 1,000), where V is the rms supply voltage, between the terminals of a capacitor used for radio interference elimination or arc suppression
29. Cord Length	UL 1310 4 th Edition Section 12.2.1	The blade assembly for connection to the branch circuit shall be of the polarized or grounding type. The length of cord external to the unit and including the attachment plug shall not be less than 6 ft (1.8 m) as measured from the face of the attachment plug to the point of attachment or entry.
30. Cord Size	UL 1310 4 th Edition Section 12.1	Must be of proper type for rated current
31. Strain Relief	UL 1310 4 th Edition Section 41.3 & 41	Must withstand a 35 lb strain I8 AWG cord or higher, and 20 lb for less than 18 AWG for 1 minute
32. Surface Temperature	Std. Measure	Under no load condition, 150° F max. for handles & controls: 185° F max. for housing
33. Drop Impact	In-house method	Withstand three 3 ft drop to vinyl clad cement with no failure

Fitness for Use		
34. Functional Check	Actual Use	All the major features shall be matched with the installation and use instructions and claims made on the packaging, with no inaccurate or misleading statements about the product, or any other user-friendliness problems.
35. Ease of Installation	Follow directions for installation in Instruction manual	Report relative ease of installation. Report if instructions pertaining to installation are complete and understandable. Parts shall be provided as claimed.
36. Ease of Cleaning	Follow Instructions or Wipe Gently with Damp Cloth	Follow the cleaning instruction. Removable parts shall be replaced easily and not causing any safety hazards.
Additional test		
37. *Chemical & Energy Efficiency test for all electrical items to California	DG-EA065	Shall meet the requirements in DG-EA065 • All products containing CA Prop 65 warning label will be reported as FAILED.
38. Dollar General Certificate of Compliance - Toxics in packaging	Client requirement	Shall provide signed/ chopped document: Dollar General Toxics in Packaging Certificate of Compliance. Client requirement
39. *Volatile organic Substances (VOC)(if applicable)	GC-MS screening/US EPA method 5000 and 8021B / doc review	Product with solvent based-liquid (eg. Adhesive, paints, glues and etc.) shall not contain toxic aromatic compounds and hazard substances. GC-MS screening or US EPA method 5000 and 8021B In lieu of testing, test report can be submitted if dated within 1 year.

* Additional Charge Item.

Testing Charge & Sample Size & Turnaround Time

Turnaround time	7 working day	
Sample size	3 pieces	
Testing charge :		Sample size
Basic charge:	USD 300	
Additional charge:		
Chemical & Energy Efficiency test for all electrical items to California DG-EA065(US)	Subject to actual sample	Subject to actual sample
battery mercury test	USD 100	Subject to actual sample

Remark: Additional samples and tests may be necessary subjected to the review by Intertek upon receipt of the sample.

Test requirements	Reference Method	Requirement
Document Review		
1. Labeling – Packaging or product	Uniform Labeling Regulation	Distributor's Name & Address (City, State & Zip) Product Identification
2. Country of origin marking	NAFTA & FTCA / Sect. 5	Country Of Origin (If Imported)
3. Safety Certification Mark	Visual	Class 2 power unit shall have valid UL or ETL listing. Verify listing by NRTL product directory with the sample's listing number and model number.
4. DOE requirement (For Power supply)	10 CFR 430	Shall have valid DOE certification report for verification. It is the vendor's responsibility to submit the certification report and compliance statement to DOE.
5. Rating	UL 745-4-11 1 st Edition, Section 5.1	The maximum rated voltage is 30 Vdc
6. Marking	UL 745-4-11 1 st Edition, Section 7.1	Shall be marked with: - rated voltage(s), in volts; - symbol for direct current; - manufacturer's name, trade mark or identification mark; - manufacturer's model or type reference; - date of manufacture; - rated no-load speed; - maximum cutting depth (mm) for cutting in wood (jigsaw only) - Warning — To reduce the risk of injury, user must read and understand instruction manual. The word "Warning" shall be in capital letters not less than 2.4 mm high and shall not be separated from the cautionary statement. The statement shall be verbatim except the term "Operator's manual" or "User guide" may be used for the term "instruction manual".
7. Marking	UL 745-4-11 1 st Edition, Section 7.6	When symbols are used, they shall be per section.
8. Marking	UL 745-4-11 1 st Edition, Section 7.10	- A push-button shall be colored red only if it serves to open the circuit to be controlled and has no other function. - This requirement does not apply to push-buttons used for locking the mains switch. This requirement refers to emergency-off switches only and does not preclude the use of red trigger, rocker, toggle, or other switches and controls. - For tools which might result in a risk of injury when started unexpectedly, the "off" position of the mains switch shall be indicated, unless this position is obvious; the indication, if required, shall be the figure 0. - The figure 0 shall not be used for any other indication. - This requirement does not preclude the use of the figure 0 for the minimum setting of a variable speed control, 0 degree, 0 depth of cut, or similar indication.
9. Marking	UL 745-4-11 1 st Edition, Section 7.13	Cautionary markings shall be written in the official language(s) of the country in which the tool is to be sold.
10. Marking	UL 745-4-11 1 st Edition, Section 7.14	Required markings shall be easily visible, legible and durable per section.

Test requirements	Reference Method	Requirement
11. Instructions	UL 745-4-11 1 st Edition, Section 31.1	- An instruction manual shall be provided with a tool and packaged such that it is obvious when tool is removed from the carton. - General and specific safety instructions required by this standard shall be written in the official language(s) of the country in which the tool is to be sold- See Appendix H for translations. - Instructions shall be legible and contrast with the background. - The instruction manual shall include the name and address, street, city, state, postal code of the manufacturer or private labeler. - This requirement does not preclude supplying the instructions printed on a blister pack backing card, provided the tool can be removed without damaging the instructions.
12. Instructions	UL 745-4-11 1 st Edition, Section 31.2	The instruction manual shall include the following major categories in the sequence given: - GENERAL SAFETY RULES - SPECIFIC SAFETY RULES AND/OR SYMBOLS - FUNCTIONAL DESCRIPTION - ASSEMBLY - OPERATION - MAINTENANCE - ACCESSORIES Equivalent terms for titles of categories may be used.
13. Mercury-Containing and Rechargeable Battery Management Act Pub. L. 104-142. 13 May 1996. Stat. 110.1333.	Title I, Rechargeable Battery Recycling Act	Cadmium and Lead containing batteries shall bear 3 chasing arrows or comparable recycling symbol and A) Ni-Cd or nickel-cadmium and "BATTERY MUST BE RECYCLED OR DISPOSED OF PROPERLY" B) Pb or "LEAD", "RETURN" and "RECYCLE" and "BATTERY MUST BE RECYCLED" if sealed.
14. Mercury-Containing and Rechargeable Battery Management Act	U.S. Pub. L. 104-142. 13 May 1996. (Including Title I for rechargeable and II for mercury containing battery.)	Batteries larger than button cell shall contain no intentionally added Mercury. No intentionally added Hg is demonstrated in this product if testing shows less than 1 ppm (best practice). Batteries of button cell size are allowed small amounts of added mercury, but shall test to less than 25 mg Hg / cell. Testing is required on all included alkaline-manganese batteries, zinc-carbon (Heavy Duty) batteries, and silver-oxide and zinc-air button cells. Perform test only if no related document provided for review.

Test requirements	Reference Method	Requirement
15. Mercury Labeling as applicable to Button Cell Battery powered devices. (If Applicable)	Various State Laws, including: <u>VT</u> : Title 10, Chapter 159, Sec. 6621d, <u>RI</u> : Title 23, Chapter 23-24.9, <u>NH</u> : title x, Chapter 149-M, Sec. 149-M: 51- 149-M: 57, <u>CT</u> : Public Act 02-90 <u>NY</u> : Chap 145, Title 21 Ch. 27 2101-2115	(If a button cell is found to have intentionally added mercury, such as by testing at over 1 ppm, RI, CT, NY, and VT require product containing mercury have labeling to indicate the presence of mercury and instructions on how to properly dispose of the product. Requirements vary by state. Registration with IMERC may be required.) Product or packaging for items with button cells found to have intentionally added mercury, that may be distributed to states with Mercury legislation shall be Marked so as to be clearly visible prior to the sale and Product itself shall be marked permanently for the life of the product with the following "Battery Contains Mercury. Do Not Put in Trash. Recycle or Manage as Hazardous Waste." or equivalent. CT and NY further require that the product with button cell batteries that contain Hg to be replaceable. Product with button cells found to have intentionally added mercury that may be distributed to CT or NY shall have the batteries replaceable, allowing for use of common household tools.
16. Parts Inventory	Visual	Shall meet label claims.
Construction Check		
17. Packing	Visual	No hazard when removing the packing
18. Workmanship	Visual	Shall have no major defects such as: - Cracks or breakage on provided accessories - Serious scratches on the external surface - Peeling of rating or caution / warning label
19. Mechanical Assembly	Visual Check	All mechanical parts shall be securely fixed and prevented from turning.
20. Internal Wiring	Visual Check	Wireways shall not allow wires to come in contact with sharp points, edges or moving parts.
21. Mechanical Hazards	UL 745-4-11 1 st Edition, Section 18.1	Moving parts shall be so arranged or enclosed as to provide adequate protection against personal injury.
22. Construction	UL 745-4-11 1 st Edition, Section 20.1	Tools which can be adjusted to different speeds shall be so constructed that accidental changing of the setting is unlikely to occur, if such a change might result in a risk of injury.
23. Construction	UL 745-4-11 1 st Edition, Section 20.4	If handles, knobs and the like are used to indicate the position of switches or similar components, it shall not be possible to fix them in a wrong position if this might result in a risk of injury.
24. Construction	UL 745-4-11 1 st Edition, Section 20.18	Switches shall be so located that accidental operation is unlikely to occur.
25. Construction	UL 745-4-11 1 st Edition, Section 20.19	Shall be fitted with an on-off switch which can be switched off by the user without releasing his grasp on the tool.
26. Mechanical Strength	UL 745-4-11 1 st Edition, Section 19	Shall have adequate mechanical strength and be so constructed as to withstand three drops from height of 1 meter or ball impact of 6.8 J per Section
27. Supply Connections and External Flexible Cables and Cords	UL 745-4-11 1 st Edition, Section 23.5	Saws provided with a power supply cord shall have cord anchorages such that the conductors are relieved from strain, including twisting, where they are connected within the tool, and that their covering is protected from abrasion. Compliance is checked by inspection. This clause applies only to tools with separable batteries connected by a cord.
Electrical Safety		
28. Component Check	Visual Check	If listing safety report provided, report any difference of component used in the sample and the listing report. Exclude plastic material, insulation material or other components without marking.

Test requirements	Reference Method	Requirement
29. Heating	UL 745-4-11 1 st Edition, Section 11	Shall not attain excessive temperature under a no-load condition per section and table. Cutouts and overload releases shall not operate during the test.
30. Electric Strength	UL 745-4-11 1 st Edition, Section 15	Shall withstand a voltage of 500 V for 1 min without breakdown.
31. Abnormal Operation	UL 745-4-11 1 st Edition, Section 17	Shall be designed to reduce the risk of fire as a result of abnormal operation by subjecting the fully charged tool or battery pack to the open or shorting tests per this section.
32. Motor Reversing Tests	UL 745-4-11 1 st Edition, Section 17.4	Switches or other devices for reversing motor direction shall withstand the stresses occurring when the direction of rotation is changed under running conditions with a fully charged battery per section for 25 times. No mechanical or electrical failure shall occur.
33. On / Off Switch Tests	UL 745-4-11 1 st Edition, Section 22.2	Shall have adequate breaking capacity, and be suitable for frequent operation. Compliance is checked by inspection and by following tests: • Test together with a fully charged battery pack. • Stall the motor and operate the switch is 50 times, each "on" period being not more than 0.5 s and each "off" period being not less than 10 s. • If, in normal use, an electronic control device switches off the current before opening the main contacts, the number of operations is reduced to five, with the electronic control device short-circuited. • During this test, no sustained arcing or undue burning, pitting or welding of contacts shall occur and there shall be no electrical or mechanical failure. • Switches are also tested for DC operation in accordance with the relevant component standard given in Appendix E or, as an alternative, subjected to 6000 operations of making and breaking at the normal no-load current and at the voltage encountered in the fully charged tool. The tests shall not result in ignition of the switch materials and the switch shall complete the tests without loss of on-off control or unexpected turn on.
34. Power Draw	Ammeter, DC power supply	Measure DC current draw under normal use condition at nominal voltage.
35. Switch Durability	In-house method	Should withstand 100 on / off cycles
36. Locking Mechanism	In-house method	Shall withstand 50 cycles without defect
37. Elevated Impact Resistance	In-house method	If applicable, handheld products to be used around the face or head shall sustain no permanent damage shall be sustained by unit from drop from 1.5 meters. Opening of battery case is acceptable.
Fitness for Use		
38. Functional Check	Actual Use	All the major features shall be matched with the installation and use instructions and claims made on the packaging, with no inaccurate or misleading statements about the product, or any other user-friendliness problems.
39. Ease of Installation	Follow directions for installation in Instruction manual	Report relative ease of installation. Report if instructions pertaining to installation are complete and understandable. Parts shall be provided as claimed.
40. Ease of Cleaning	Follow Instructions or Wipe Gently with Damp Cloth	Follow the cleaning instruction. Removable parts shall be replaced easily and not causing any safety hazards.
Additional test		

Test requirements	Reference Method	Requirement
41. *Chemical & Energy Efficiency test for all electrical items to California*	DG-EA065	Shall meet the requirements in DG-EA065 • All products containing CA Prop 65 warning label will be reported as FAILED.
42. Dollar General Certificate of Compliance - Toxics in packaging	Client requirement	Shall provide signed/ chopped document: Dollar General Toxics in Packaging Certificate of Compliance. Client requirement
43. *Volatile organic Substances (VOC)(if applicable)	GC-MS screening/US EPA method 5000 and 8021B / doc review	Product with solvent based-liquid (eg. Adhesive, paints, glues and etc.) shall not contain toxic aromatic compounds and hazard substances. GC-MS screening or US EPA method 5000 and 8021B In lieu of testing, test report can be submitted if dated within 1 year.

* Additional Charge Item.

Testing Charge & Sample Size & Turnaround Time

Turnaround time	7 working day
Sample size	3 pieces
Testing charge :	
Basic charge:	USD 425
Additional charge:	
Chemical & Energy Efficiency test for all electrical items to California DG-EA065(US)	Subject to actual sample
Battery mercury test	USD 100

Remark: Additional samples and tests may be necessary subjected to the review by Intertek upon receipt of the sample.

Test requirements	Reference Method	Requirement
Document Review		
1. Labelling – Packaging or product	Uniform Labelling Regulation	Distributor's Name & Address (City, State & Zip)
		Product Identification
2. Country of origin marking	NAFTA & FTCA / Sect. 5	Country Of Origin (If Imported)
3. Safety Certification Mark	Visual	Class 2 power unit shall have valid UL or ETL listing. Verify listing by NRTL product directory with the sample's listing number and model number.
4. General marking	UL745-2-4	- rated voltage(s) or rated voltage range(s), in volts; - symbol for nature of supply, if applicable; - rated frequency or rated frequency range, in hertz, unless the tool is designed for d.c. only or for a.c. of both 50 Hz and 60 Hz; - rated input (if greater than 25 W) in watts or kilowatts, or rated current, in amperes; - manufacturer's name, trade mark, or identification mark; - manufacturer's model or type reference; - rated operating time, or rated operating time and rated resting time, in hours, minutes or seconds, if applicable; - symbol for Class II construction, for Class II tools only; - rated no-load speed; - date of manufacture;
5. Belt Rotation Marking	UL 745-2-4	For Belt-type sanders, the direction of rotation of the belt shall be indicated by an arrow, raised or sunk, or by any other means no less visible or indelible
6. Caution Marking	UL 745-2-4	"WARNING – To reduce the risk of injury, user must read and understand instruction manual"; The word "Warning" shall be in capital letters not less than 2.4 mm high, and shall not be separated from the cautionary statement. The statement shall be verbatim except the term "Operator's manual", or "User guide" may be used for the term "Instruction manual".
7. Caution Marking	UL 745-2-4	A caution marking shall be permanent and shall be located on a part permanently attached to the tool or on a part that cannot be removed without impairing the operation or the appearance of the tool.
8. Instructions	UL745-2-4	An instruction manual shall be provided with the tool. The instruction manual shall include the following major categories in the sequence given: 1. General Safety Rules 2. Specific Safety Rules And/Or Symbols 3. Functional Description 4. Assembly 5. Operation 6. Maintenance 7. Accessories
9. Parts Inventory	Visual	Shall meet label claims.
Construction Check		
10. Packing	Visual	No hazard when removing the packing
11. Workmanship	Visual	Shall have no major defects such as: - Cracks or breakage on provided accessories - Serious scratches on the external surface - Peeling of rating or caution / warning label
12. Mechanical Assembly	Visual Check	All mechanical parts shall be securely fixed and prevented from turning.

Test requirements	Reference Method	Requirement
13. Internal Wiring	Visual Check	Wireways shall not allow wires to come in contact with sharp points, edges or moving parts.
14. Live Parts	UL 745-2-4	The enclosure of the tool shall have no openings other than those necessary for the use and working of the tool, giving access to live parts and, for Class II tools, to parts separated from live parts by basic insulation only. Compliance is checked by inspection and by a test with the standard test finger shown in Figure 1. In addition apertures in Class II tools and apertures in Class I tools, other than those in metal parts connected to an earthing terminal or earthing contact, are tested with the test pin shown in Figure 2. After removal of detachable parts, the test finger and the test pin are applied in every possible position, the test finger being applied without appreciable force and the test pin with a force of 10 N. It shall not be possible to touch bare live parts or live parts protected by lacquer, enamel, ordinary paper, cotton, oxide film, beads or sealing compound only, with the test finger. For Class II tools it shall not be possible to touch bare live parts with the test pin shown in Figure 2 or, to touch metal parts, separated from live parts by basic insulation only with the test finger shown in Figure 1.
15. Fit Characteristics Of Plug	UL 745-2-4	Shall fit recognized receptacles without any exposure of live parts and with good conduction.
16. Cord Length	UL 745-2-4	A tool shall be provided with flexible cord, permanently attached to the tool and with an attachment plug, which may be of the locking type, for connection to the power-supply circuit. Flexible cords on tools not intended to be used with liquids shall be (1) less than 0.5 m long, or (2) equal or greater than 1.8 m long.
17. Grounding	UL 745-2-4	A tool must employ either a 2-Wire polarized or a 3-Wire grounding plug.
18. Drop Test	UL 745-2-4 Cls. 19.1(mod)	The unit shall withstand being dropped 3 times on a concrete surface from a height of one meter. After the tests, sample shall be no live parts exposure. It shall not be possible to touch bare live parts or live parts protected by lacquer, enamel, ordinary paper, cotton, oxide film, beads or sealing compound only, with the test finger. For Class II tools it shall not be possible to touch bare live parts with the test pin shown in Figure 2 ; or, to touch metal parts, separated from live parts by basic insulation only with the test finger shown in Figure 1. supplementary insulation or reinforced insulation is subjected to an electric strength test as in Sub-clause 15.3 but with 75 percent of the values specified.
19. Motor - Brush-Holder Assembly	UL 745-2-4	Shall be constructed as to prevent energizing an accessible dead metal part exposing a live part when a brush is worn out.
20. Switches & Controls	UL 745-2-4	A switch or other controller device shall have a voltage rating and an ampacity not less than the corresponding values of the load it controls. A tool shall not employ a through-cord switch. A single-pole switch employed in a tool having a nominal rating of 120V shall be connected in the ungrounded conductor circuit.
21. Attachments & Accessories	UL 745-2-4	Operation of the tool with accessories or attachments shall not result in an increased risk of injury to persons.
Electrical Safety		
22. Component Check	Visual Check	If listing safety report provided, report any difference of component used in the sample and the listing report. Exclude plastic material, insulation material or other components without marking.

Test requirements	Reference Method	Requirement
23. Leakage Current	UL 745-2-4	A measurement is made of the leakage current which may flow from any pole of the supply to accessible metal parts and metal foil with an area not exceeding 20 cm x 10 cm in contact with accessible surfaces of insulating material, connected together; and to metal parts of Class II tools, separated from live parts by basic insulation only. for Class I tools 0.5 mA for Class II tools.....0.25 mA
24. Current Input Test	UL 745-2-4	If the tool is marked with rated current, the current taken by the tool under normal load shall not exceed the rated current by more than 15 percent. Compliance is checked by measuring the current taken by the tool operating under normal load conditions, at rated voltage or at the mean value of the rated voltage range, if the voltage range does not exceed 10 percent of its mean value. If the tool is marked with rated Watt, the measured value shall meet requirement of clause 10.1.
25. Dielectric Breakdown	UL 745-2-4	The dielectric strength test for whole product. No dielectric break down or flashover at 1250VAC for 1 Min in Basic Insulation, 2500VAC for 1 Min in Supplementary insulation(if present), 3750VAC for 1 Min in Reinforced insulation (if present).
26. Strain Relief	UL 745-2-4	Power cord shall withstand a steady pull equal to 3 times the product weight (not less than 156N or greater than 220N) in any direction for 1 minute. This test shall be repeated 10 times with no mechanical strain or damage being transmitted to terminal or internal wiring through the power cord. After the test, the cable or cord shall not have been longitudinally displaced by more than 2 mm and the conductors shall not have moved over a distance of more than 1 mm in the terminals, nor shall there be appreciable strain at the connection. For the measurement of the longitudinal displacement, a mark is made on the cable or cord while it is subjected to the pull, at a distance of approximately 20 mm from the cord anchorage before starting the tests.
Fitness for Use		
27. Functional Check	Actual Use	All the major features shall be matched with the installation and use instructions and claims made on the packaging, with no inaccurate or misleading statements about the product, or any other user-friendliness problems.
28. Ease of Installation	Follow directions for installation in Instruction manual	Report relative ease of installation. Report if instructions pertaining to installation are complete and understandable. Parts shall be provided as claimed.
29. Ease of Cleaning	Follow Instructions or Wipe Gently with Damp Cloth	Follow the cleaning instruction. Removable parts shall be replaced easily and not causing any safety hazards.
Additional test		
30. *Chemical & Energy Efficiency test for all electrical items to California*	DG-EA065	Shall meet the requirements in DG-EA065 • All products containing CA Prop 65 warning label will be reported as FAILED.
31. Dollar General Certificate of Compliance - Toxics in packaging	Client requirement	Shall provide signed/ chopped document: Dollar General Toxics in Packaging Certificate of Compliance. Client requirement



Test requirements	Reference Method	Requirement
32. *Volatile organic Substances (VOC)(if applicable)	GC-MS screening/US EPA method 5000 and 8021B / doc review	Product with solvent based-liquid (eg. Adhesive, paints, glues and etc.) shall not contain toxic aromatic compounds and hazard substances. GC-MS screening or US EPA method 5000 and 8021B In lieu of testing, test report can be submitted if dated within 1 year.

* Additional Charge Item.

Testing Charge & Sample Size & Turnaround Time

Turnaround time	7 working day	
Sample size	3 pieces	
Testing charge :		Sample size
Basic charge:	USD 400	
Additional charge:		
Chemical & Energy Efficiency test for all electrical items to California DG-EA065(US)	Subject to actual sample	Subject to actual sample

Remark: Additional samples and tests may be necessary subjected to the review by Intertek upon receipt of the sample.

DOLLAR

GENERAL

CONFIDENTIAL

General		
Test Item	OBTest Method	Requirement
Document Review		
1. Labelling – Packaging or product	Uniform Packaging and Labelling Regulation	Distributor's Name & Address (City, State & Zip)
		Product Identification
2. Country of origin marking	NAFTA & FTCA / Sect. 5	Country Of Origin (If Imported)
Physical		
3. Parts Inventory	Visual Check	Shall meet label claims.
4. Cord Length	General Measure	Length of the headphone or earphone cord shall meet the claims and within +20%/-5% deviation.
Construction Check		
5. Packing	Visual Check	No hazard when removing the packing
6. Workmanship	Visual Check	Shall have no major defects such as: - Cracks or breakage on provided accessories - Serious scratches on the external surface - Peeling of rating or caution / warning label
7. Mechanical Assembly	Visual Check	All mechanical parts shall be securely fixed and prevented from turning.
8. Internal Wiring	Visual Check	Wireways shall not allow wires to come in contact with sharp points, edges or moving parts.
Fitness for Use		
9. Functional Check	Actual Use	All the major features shall be matched with the installation and use instructions and claims made on the packaging, with no inaccurate or misleading statements about the product, or any other user-friendliness problems.
10. Ease of Cleaning	Follow Instructions or Wipe Gently with Damp Cloth	Follow the cleaning instruction. Removable parts shall be replaced easily and not causing any safety hazards.
Requirement for Special Features		
Wireless Product		
11. FCC part 15 rules	Visual Check	FCC part 15 certificate and report shall be provided for verification.
12. FCC Part 15 marking and instruction	Visual Check	Marking shall include, · FCC ID Instruction manual shall include, · "Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment." · "NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: ■ Reorient or relocate the receiving antenna. ■ Increase the separation between the equipment and receiver. ■ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. ■ Consult the dealer or an experienced radio/TV technician for help."

Technical information and related recommendations listed in this specification are proprietary information of Intertek Testing Services. Copying is prohibited without permission of Intertek in written document. This specification does not purport to include all the necessary provisions nor address all of the safety concerns, if any, associated with its use. Compliance with this specification does not of itself confer immunity from legal obligations.

AC Operated Product		
Document Review		
13. Safety Certification Mark	Visual Check	The provided UL or ETL Listing safety mark shall be validated.
14. General and Cautionary Markings	UL 60065, Cls. 5	A general, cautionary and warning marking intended to inform the user of a potential risk of fire, electrical shock, or injury to persons shall be provided.
15. User Manual / Important Safety Instructions / Assembly Instructions	UL 60065, Cls. 5.4	Instructions and warnings shall be provided in the user manual identifying reasonable foreseeable uses or misuses of the product. It shall also include instructions regarding the installation, use, safety and maintenance.
Construction Check		
16. Plug	Visual Check	Plug shall be 3-wire grounding type or 2-wire polarized attachment plug.
17. Cord Type and Length	UL 60065, Cls. 16	A cord-connected appliance shall be provided with an appropriate type and length of flexible cord per section
Electrical Safety		
18. Component Check	Visual Check	If listing safety report provided, report any difference of component used in the sample and the listing report. Exclude plastic material, insulation material or other without marking components.
19. Dielectric Voltage-Withstand Test	UL 60065, Cls. 10.3	An appliance shall be capable of withstanding for 1 min when a test voltage of 4240 VAC peak is applied between live parts and accessible metal parts, without an indication of unacceptable performance.
20. Accessibility of Live Parts	UL 60065, Cls. 9.1.1.2	Inspect for access to live parts after removal of detachable parts
21. Temperature Test	UL 60065, Cls. 7	Under normal operating conditions, supporting surface and all accessible surfaces shall not attain excessive temperature rise as described in Table 3.
22. Strain Relief	UL 60065, Cls. 16.5	Strain relief shall be provided to prevent a mechanical stress on a flexible cord from being transmitted to terminals, splices, or interior wiring.
23. Stability Test	UL 60065, Cls. 19.1	Apparatus having a mass of 7 kg or more shall have adequate stability. During the tests, the apparatus shall not overturn when inclined at an angle at 10° to the horizontal.
24. Continuity of grounding connection	UL 60065, Cls. 15.2	The resistance of the connection between the PROTECTIVE EARTHING TERMINAL or contact, and parts required to be connected thereto, shall not exceed 0.1 ohm.
AC Adaptor Operated		
Document Review		
25. General and Cautionary Markings	UL 1310 Cls. 49.1	Charger shall be legibly and permanently marked: a) The manufacturer's name, trade name, or trademark; b) The date or other dating period of manufacture not exceeding any three consecutive months; c) A distinctive catalogue or model number, or the equivalent; and d) The electrical rating.
	UL 1310 Cls. 49.4	Charger shall be marked with one of the following: a) "Class 2 BATTERY Charger"; b) "Class 2 TRANSFORMER"; c) "Class 2 Power Supply"; or d) "Class 2 Power Unit."

Electrical Safety		
26. Output current and power test - Inherently Limited	UL 1310 Cls. 28.2	The maximum output current shall not exceed the value specified in Table 28.1 and the maximum output volt-amperes shall not be more than 100 volt-amperes, except as indicated in 28.2.3 and 28.3.1
27. Output current and power test - Inherently Limited	UL 1310 Cls. 28.3	When the unit includes means to automatically de-energize the output circuit, the values of the output current and volt-amperes shall not exceed those specified in Table 28.2
28. Dielectric Withstand	UL 1310 Cls. 32	Shall withstand for 1 minute without breakdown: a) One thousand volts AC plus twice the maximum rated voltage between 1) The primary circuit and accessible dead metal parts, and 2) The primary and secondary circuit or circuits. b) One thousand volts AC plus two times the sum of secondary voltages between secondary windings for units described in 26.3 or 28.2.3 c) Five hundred volts AC between a secondary circuit and dead metal parts d) A DC potential of 1.414 times (2 V + 1,000), where V is the RMS supply voltage, between the terminals of a capacitor used for radio interference elimination or arc suppression
29. Strain Relief	UL 1310 Cls. 40	Must withstand a 35 lbf (156 N) strain for 1 minute.
30. Direct Plug-In Blade Secureness Test	UL 1310 Cls. 41.1	Each blade and the grounding pin, if provided, shall withstand a direct pull of 20 lbf (89 N) for 2 minutes without loosening. The two blades tested together shall also withstand a direct pull of 20 lbs. for 2 minutes without loosening.
31. Impact Test	UL 1310 Cls. 44.3	Shall be subjected to a single impact of 5 lbf (6.78 N m) by a 2 in. (51 mm) dia., 1.18 lb (535 g) steel ball from a height of 51 in. (1.30 m).
Battery operated		
Electrical Safety		
32. Battery reverse polarity	In house method	Insert battery but with reverse polarity and stabilize for 1 hour. Explosion or chemical leakage shall not occur.
33. Battery overcharge test	In house method	With full charged battery installed and charge for additional 7 hours, explosion or chemical leakage shall not occur.
34. Battery short circuit test	UL 60065 Cl. 14.10.1 (Modify with test temp. at 20 degC only and sample size to 1)	For rechargeable battery, with full charge battery installed and short circuiting the positive and negative terminals of the battery with a resistor of 0.1 ohm max.. During and after test, the battery shall not explode or catch fire, or chemical leaks. Temperature of battery pack casing shall not exceed 150 degC.
Additional test		
35. Chemical & Energy Efficiency test for all electrical items to California*	DG-EA065	Shall meet the requirements in DG-EA065 • All products containing CA Prop 65 warning label will be reported as FAILED.

Sample size: 3 samples

Turnaround time: 7 working days

Test charge:

No separate power source: 100 USD

Battery operated: 150 USD

AC mains or AC adaptor operated: 250 USD

* For additional charge and other information of Chemical & Energy Efficiency test for all electrical items to California, please see the protocol DG-EA065(US) for details.

Remark:

1. Additional samples and tests may be necessary subjected to the review by Intertek upon receipt of the sample.

DOLLAR
GENERAL
CONFIDENTIAL

Test requirements	Reference Method	Requirement
Document Review		
1. Labelling – Packaging or product	Uniform Labelling Regulation	Distributor's Name & Address (City, State & Zip)
		Product Identification
2. Country of origin marking (If imported)	NAFTA & FTCA / Sect. 5	Country Of Origin (If Imported)
3. Parts Inventory	Visual	Shall meet label claims.
4. General and Cautionary Markings	Visual Check	A general, cautionary and warning marking intended to inform the user of a potential risk of fire, electrical shock, or injury to persons shall be provided.
5. User Manual / Important Safety Instructions / Assembly Instructions	Visual Check	Instructions and warnings shall be provided in the user manual identifying reasonable foreseeable uses or misuses of the product. It shall also include instructions regarding the installation, use, safety and maintenance.
Construction Check		
6. Packing	Visual	No hazard when removing the packing
7. Workmanship	Visual	Shall have no major defects such as: - Cracks or breakage on provided accessories - Serious scratches on the external surface - Peeling of rating or caution / warning label
8. Mechanical Assembly	Visual Check	All mechanical parts shall be securely fixed and prevented from turning.
9. Internal Wiring	Visual Check	Wireways shall not allow wires to come in contact with sharp points, edges or moving parts.
Fitness for Use		
10. Functional Check	Actual Use	All the major features shall be matched with the installation and use instructions and claims made on the packaging, with no inaccurate or misleading statements about the product, or any other user-friendliness problems.
11. Ease of Installation	Follow directions for installation in Instruction manual	Report relative ease of installation. Report if instructions pertaining to installation are complete and understandable. Parts shall be provided as claimed.
12. Cord Anchorages	UL 60950, Cls. 3.2.6	Interconnecting cables shall not rotate in relation to the body of the product to such an extent that mechanical strain is imposed on the electrical connections
13. Strain relief	UL 60950, Cls. 3.2.6	Interconnecting cables shall be able to sustain a pull force of 30N without longitudinally displayed by more than 2 mm nor shall there be appreciable strain at the connections
14. Drop test	UL 60950, Cls. 4.2.6	Product shall function normally after the product was dropped from 1 meter onto a hard wooden surface for 3 times
Additional test		
15. With Child Appealing Features	DG-EA051	Shall meet the requirements in DG-EA051
16. Chemical & Energy Efficiency test for all electrical items to California*	DG-EA065	Shall meet the requirements in DG-EA065 • All products containing CA Prop 65 warning label will be reported as FAILED.

Sample size:
3 sets for DG-EA056(US)
12 sets for DG-EA051(US)

Document required:

1. Packaging or Packaging Artwork
2. User manual
3. Markings, including rating label, warning and caution markings
4. Safety certificate and report

Turnaround time: 7 working days

Test charge : 150USD

80 USD for DG-EA051(US) exclude chemical test

Lead Content of Paints or Similar Surface Coating: 25USD per coating

Lead Content of Substrate Materials: 25USD per coating

California Phthalates Content Requirement: 150USD for 6 chemicals/120USD for 3 chemicals

* According to DG's requirement, phthalates test would apply to this electrical item

* For additional charge and other information of Chemical & Energy Efficiency test for all electrical items to California, please see the protocol DG-EA065(US) for details.

Remark: Additional samples and tests may be necessary subjected to the review by Intertek upon receipt of the sample.

DOLLAR
GENERAL
CONFIDENTIAL

Test requirements	Reference Method	Requirement
Document Review		
1. Labelling – Packaging or product	Uniform Labelling Regulation	Distributor's Name & Address (City, State & Zip) Product Identification
2. Country of origin marking (If imported)	NAFTA & FTCA / Sect. 5	Country Of Origin (If Imported)
3. Parts Inventory	Visual	Shall meet label claims.
4. General and Cautionary Markings	Visual Check	A general, cautionary and warning marking intended to inform the user of a potential risk of fire, electrical shock, or injury to persons shall be provided.
5. User Manual / Important Safety Instructions / Assembly Instructions	Visual Check	Instructions and warnings shall be provided in the user manual identifying reasonable foreseeable uses or misuses of the product. It shall also include instructions regarding the installation, use, safety and maintenance.
6. US FCC Part 15 Rules	Document Check	If product use RF (not infra-red) for transmission, shall have valid FCC part 15C report. If product use Infra-red for transmission and internal operating frequency > 1.705 MHz, shall have valid FCC part 15V report.
7. US FCC Part 15 marking and instruction	Visual	Marking shall include, - (FCC part 15C) FCC ID - "This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation." Instruction manual shall include, - "Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment." - "NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: ■ Reorient or relocate the receiving antenna. ■ Increase the separation between the equipment and receiver. ■ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. ■ Consult the dealer or an experienced radio/TV technician for help."
8. Parts Inventory	Visual Check	Shall meet label claims.
Construction Check		
9. Packing	Visual	No hazard when removing the packing
10. Workmanship	Visual	Shall have no major defects such as: - Cracks or breakage on provided accessories - Serious scratches on the external surface - Peeling of rating or caution / warning label
11. Mechanical Assembly	Visual Check	All mechanical parts shall be securely fixed and prevented from turning.
12. Internal Wiring	Visual Check	Wireways shall not allow wires to come in contact with sharp points, edges or moving parts.

Technical information and related recommendations listed in this specification are proprietary information of Intertek Testing Services. Copying is prohibited without permission of Intertek in written document. This specification does not purport to include all the necessary provisions nor address all of the safety concerns, if any, associated with its use. Compliance with this specification does not of itself confer immunity from legal obligations.

Test requirements	Reference Method	Requirement
Fitness for Use		
13. Functional Check	Actual Use	All the major features shall be matched with the installation and use instructions and claims made on the packaging, with no inaccurate or misleading statements about the product, or any other user-friendliness problems.
14. Ease of Installation	Actual use	Follow the instruction to assembly and disassembly the product; and comment the method of the installation. Parts shall not easy to break during normal use.
15. Ease of Cleaning	Actual use	Follow the instruction to clean up the unit. Comment the method of cleaning.
16. Durability of Switches	In-house method	Switches shall continue to function correctly after 100 cycles of operations.
17. Use Distance	In-house method	The remote control shall be able to use for at least 15 feet away from the product.
18. Remote Control Drop Test	In-house method	The remote control shall remain function after 3 drops on a hard wooden surface at a height of 3 feet.
19. Appliance Compatibility	Actual use	The remote control shall function properly with the type of appliances stated in the user manual. In case of universal remote control, one model of different type of appliances as listed in the manual would be tested for compatibility.
20. Rain Test	In-house method	For outdoor use, the unit are subject to the rain test for 1/2 hours. No water shall enter the internal circuitry and battery compartment.
Additional test		
21. With Child Appealing Features	DG-EA051	Shall meet the requirements in DG-EA051
22. Chemical & Energy Efficiency test for all electrical items to California*	DG-EA065	Shall meet the requirements in DG-EA065 • All products containing CA Prop 65 warning label will be reported as FAILED.
23. Dollar General Certificate of Compliance - Toxics in packaging	Client requirement	Shall provide signed/ chopped document: Dollar General Toxics in Packaging Certificate of Compliance. Client requirement

Sample size:
 3 sets for DG-EA057(US)
 12 sets for DG-EA051(US)

Document required:

1. Packaging or Packaging Artwork
2. User manual
3. Markings, including rating label, warning and caution markings
4. Safety certificate and report

Turnaround time: 7 working days

Test charge : 150USD

80 USD for DG-EA051(US) exclude chemical test

Lead Content of Paints or Similar Surface Coating: 25USD per coating

Lead Content of Substrate Materials: 25USD per coating

California Phthalates Content Requirement: 150USD for 6 chemicals/120USD for 3 chemicals

* According to DG's requirement, phthalates test would apply to this electrical item

* For additional charge and other information of Chemical & Energy Efficiency test for all electrical items to California, please see the protocol DG-EA065(US) for details.

Remark: Additional samples and tests may be necessary subjected to the review by Intertek upon receipt of the sample.

Test requirements	Reference Method	Requirement
Document Review		
1. Labelling – Packaging or product	Uniform Labelling Regulation	Distributor's Name & Address (City, State & Zip) Product Identification
2. Country of origin marking (If imported)	NAFTA & FTCA / Sect. 5	Country Of Origin (If Imported)
3. Parts Inventory	Visual	Shall meet label claims.
4. General and Cautionary Markings	Visual Check	A general, cautionary and warning marking intended to inform the user of a potential risk of fire, electrical shock, or injury to persons shall be provided.
5. User Manual / Important Safety Instructions / Assembly Instructions	Visual Check	Instructions and warnings shall be provided in the user manual identifying reasonable foreseeable uses or misuses of the product. It shall also include instructions regarding the installation, use, safety and maintenance.
6. US FCC Rules	Document Check	Shall have valid FCC part 15DoC report for verification.
7. US FCC Part 15 marking and instruction	Visual	Marking shall include, FCC logo, trade name; model number Instruction manual shall include, "Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment." "NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: Reorient or relocate the receiving antenna. Increase the separation between the equipment and receiver. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. Consult the dealer or an experienced radio/TV technician for help."
8. Parts Inventory	Visual Check	Shall meet label claims.
Construction Check		
9. Packing	Visual	No hazard when removing the packing
10. Workmanship	Visual	Shall have no major defects such as: - Cracks or breakage on provided accessories - Serious scratches on the external surface - Peeling of rating or caution / warning label
11. Mechanical Assembly	Visual Check	All mechanical parts shall be securely fixed and prevented from turning.
12. Internal Wiring	Visual Check	Wireways shall not allow wires to come in contact with sharp points, edges or moving parts.
Fitness for Use		
13. Functional Check	Actual Use	All the major features shall be matched with the installation and use instructions and claims made on the packaging, with no inaccurate or misleading statements about the product, or any other user-friendliness problems.
14. Supported Operating System	Actual Use	Windows ME / Windows 2000 / Windows XP / Vista / Others according to the claimed information.
15. Software installation & Usage	Actual Use	Provided software shall be usable in PC and no difficult during installation.

Test requirements	Reference Method	Requirement
16. Continuous Operation Test	In-house method	Set the unit to normal operation; continuously operate for 2 hours. Shall not indicate safety issue, fire risk, or any other abnormality.
17. Virus check	Actual Use	Check the product and associated software with a commercial Antivirus program. It shall be virus free.
18. Durability of Switches	In-house method	Switches shall continue to function correctly after 100 cycles of operations.
19. Screen Size	Visual Check	As specified by manufacturer shown on manual / label; within +/- 3% tolerance
20. Built in Memory	Visual Check	As specified by manufacturer shown on manual / label
21. Expandable Memory	Visual Check	As specified by manufacturer shown on manual / label
22. Memory Media Type	In-house Method	As specified by manufacturer shown on manual / label
23. Interface method (e.g. USB 1.1 or 2.0)	In-house Method	As specified by manufacturer shown on manual / label
24. File Format Supported (e.g. MP4, JPEG)	In-house Method	As specified by manufacturer shown on manual / label
25. Strength of key ring	In-house Method	The key ring is loaded with 5kg weight for 1 minute, no damage on the construction shall be found.
Additional test		
26. With Child Appealing Features	DG-EA051	Shall meet the requirements in DG-EA051
27. Chemical & Energy Efficiency test for all electrical items to California*	DG-EA065	Shall meet the requirements in DG-EA065 • All products containing CA Prop 65 warning label will be reported as FAILED.
28. Dollar General Certificate of Compliance - Toxics in packaging	Client requirement	Shall provide signed/ chopped document: Dollar General Toxics in Packaging Certificate of Compliance. Client requirement

Sample size: 3 sets for DG-EA058(US) 12 sets for DG-EA051(US) Document required: 1. Packaging or Packaging Artwork 2. User manual 3. Markings, including rating label, warning and caution markings 4. Safety certificate and report Turnaround time: 7 working days Test charge : 250USD 80 USD for DG-EA051(US) exclude chemical test Lead Content of Paints or Similar Surface Coating: 25USD per coating Lead Content of Substrate Materials: 25USD per coating California Phthalates Content Requirement: 150USD for 6 chemicals/120USD for 3 chemicals * According to DG's requirement, phthalates test would apply to this electrical item * For additional charge and other information of Chemical & Energy Efficiency test for all electrical items to California, please see the protocol DG-EA065(US) for details.

Remark: Additional samples and tests may be necessary subjected to the review by Intertek upon receipt of the sample.

Test requirements	Reference Method	Requirement
Document Review		
1. Labelling – Packaging or product	Uniform Labelling Regulation	Distributor's Name & Address (City, State & Zip)
		Product Identification
2. Country of origin marking (If imported)	NAFTA & FTCA / Sect. 5	Country Of Origin (If Imported)
3. FCC part 15 rules	Visual Check	For wireless product, FCC part 15 certificate and report shall be provided. For wired product, FCC part 15 verification report shall be provided if the operating frequency > 9kHz for AC, or operating frequency > 1.705Hz for Battery operated product.
4. FCC Part 15 marking and instruction	Visual Check	Marking shall include, - (FCC part 15V) Model number - (FCC part 15V) "This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation." - (FCC part 15C) FCC ID Instruction manual shall include, - "Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment." - "NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: ■ Reorient or relocate the receiving antenna. ■ Increase the separation between the equipment and receiver. ■ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. ■ Consult the dealer or an experienced radio/TV technician for help."
5. DHHS Marking	Visual Check	Product incorporated laser module shall contain statement: 1. Complies with 21 CFR Chapter 1, Subchapter J" 2. Complies with 21 CFR 1040.10 and 1040.11"
Physical		
6. Parts Inventory	Visual Check	Shall meet label claims.
Construction Check		
7. Packing	Visual Check	No hazard when removing the packing
8. Workmanship	Visual Check	Shall have no major defects such as: - Cracks or breakage - Serious scratches on the external surface - Peeling of rating or caution / warning label
9. Mechanical Assembly	Visual Check	All mechanical parts shall be securely fixed and prevented from turning.
10. Internal Wiring	Visual Check	Wireways shall not allow wires to come in contact with sharp points, edges or moving parts.
Fitness for Use		

Technical information and related recommendations listed in this specification are proprietary information of Intertek Testing Services. Copying is prohibited without permission of Intertek in written document. This specification does not purport to include all the necessary provisions nor address all of the safety concerns, if any, associated with its use. Compliance with this specification does not of itself confer immunity from legal obligations.

Test requirements	Reference Method	Requirement
11. Functional Check	Actual Use	All the major features shall be matched with the installation and use instructions and claims made on the packaging, with no inaccurate or misleading statements about the product, or any other user-friendliness problems.
12. Ease of Installation	Follow directions for installation in Instruction manual	Report relative ease of installation. Report if instructions pertaining to installation are complete and understandable. Parts shall be provided as claimed.
13. Ease of Cleaning	Follow Instructions or Wipe Gently with Damp Cloth	Follow the cleaning instruction. Removable parts shall be replace easily and not causing any safety hazards.
AC Operated Product		
Document Review		
14. Safety Certification Mark	Visual Check	The provided UL or ETL Listing safety mark shall be validated.
15. General and Cautionary Markings	UL 60065, Cls. 5	A general, cautionary and warning marking intended to inform the user of a potential risk of fire, electrical shock, or injury to persons shall be provided.
16. User Manual / Important Safety Instructions / Assembly Instructions	UL 60065, Cls. 5.4	Instructions and warnings shall be provided in the user manual identifying reasonable foreseeable uses or misuses of the product. It shall also include instructions regarding the installation, use, safety and maintenance.
Construction Check		
17. Plug	Visual Check	Plug shall be 3-wire grounding type or 2-wire polarized attachment plug.
18. Cord Type and Length	UL 60065, Cls. 16	A cord-connected appliance shall be provided with an appropriate type and length of flexible cord per section
Electrical Safety		
19. Component Check	Visual Check	If listing safety report provided, report any difference of component used in the sample and the listing report. Exclude plastic material, insulation material or other without marking components.
20. Dielectric Voltage-Withstand Test	UL 60065, Cls. 10.3	An appliance shall be capable of withstanding for 1 min when a test voltage of 4240 VAC peak is applied between live parts and accessible metal parts, without an indication of unacceptable performance.
21. Accessibility of Live Parts	UL 60065, Cls. 9.1.1.2	Inspect for access to live parts after removal of detachable parts
22. Temperature Test	UL 60065, Cls. 7	Under normal operating conditions, supporting surface and all accessible surfaces shall not attain excessive temperature rise as described in Table 3.
23. Strain Relief	UL 60065, Cls. 16.5	Strain relief shall be provided to prevent a mechanical stress on a flexible cord from being transmitted to terminals, splices, or interior wiring.
24. Stability Test	UL 60065, Cls. 19.1	Apparatus having a mass of 7 kg or more shall have adequate stability. During the tests, the apparatus shall not overturn when inclined at an angle at 10° to the horizontal.
25. Continuity of grounding connection	UL 60065, Cls. 15.2	The resistance of the connection between the PROTECTIVE EARTHING TERMINAL or contact, and parts required to be connected thereto, shall not exceed 0.1 ohm.

Technical information and related recommendations listed in this specification are proprietary information of Intertek Testing Services. Copying is prohibited without permission of Intertek in written document. This specification does not purport to include all the necessary provisions nor address all of the safety concerns, if any, associated with its use. Compliance with this specification does not of itself confer immunity from legal obligations.

Test requirements	Reference Method	Requirement
AC Adaptor Operated		
Document Review		
26. General and Cautionary Markings	UL 1310 Cls. 49.1	Charger shall be legibly and permanently marked: a) The manufacturer's name, trade name, or trademark; b) The date or other dating period of manufacture not exceeding any three consecutive months; c) A distinctive catalogue or model number, or the equivalent; and d) The electrical rating.
	UL 1310 Cls. 49.4	Charger shall be marked with one of the following: a) "Class 2 BATTERY Charger"; b) "Class 2 TRANSFORMER"; c) "Class 2 Power Supply"; or d) "Class 2 Power Unit."
27. DOE requirement	10 CFR 430	Shall have valid DOE certification report for verification. It is the vendor's responsibility to submit the certification report and compliance statement to DOE.
Electrical Safety		
28. Output current and power test - Inherently Limited	UL 1310 Cls. 28.2	The maximum output current shall not exceed the value specified in Table 28.1 and the maximum output volt-amperes shall not be more than 100 volt-amperes, except as indicated in 28.2.3 and 28.3.1
29. Output current and power test - Inherently Limited	UL 1310 Cls. 28.3	When the unit includes means to automatically de-energize the output circuit, the values of the output current and volt-amperes shall not exceed those specified in Table 28.2
30. Dielectric Withstand	UL 1310 Cls. 32	Shall withstand for 1 minute without breakdown: a) One thousand volts AC plus twice the maximum rated voltage between 1) The primary circuit and accessible dead metal parts, and 2) The primary and secondary circuit or circuits. b) One thousand volts AC plus two times the sum of secondary voltages between secondary windings for units described in 26.3 or 28.2.3 c) Five hundred volts AC between a secondary circuit and dead metal parts d) A DC potential of 1.414 times (2 V + 1,000), where V is the RMS supply voltage, between the terminals of a capacitor used for radio interference elimination or arc suppression
31. Strain Relief	UL 1310 Cls. 40	Must withstand a 35 lbf (156 N) strain for 1 minute.
32. Direct Plug-In Blade Secureness Test	UL 1310 Cls. 41.1	Each blade and the grounding pin, if provided, shall withstand a direct pull of 20 lbf (89 N) for 2 minutes without loosening. The two blades tested together shall also withstand a direct pull of 20 lbs. for 2 minutes without loosening.
33. Impact Test	UL 1310 Cls. 44.3	Shall be subjected to a single impact of 5 lbf (6.78 N m) by a 2 in. (51 mm) dia., 1.18 lb (535 g) steel ball from a height of 51 in. (1.30 m).
Battery operated		
Electrical Safety		
34. Battery reverse polarity	In house method	Insert battery but with reverse polarity and stabilize for 1 hour. Explosion or chemical leakage shall not occur.
35. Battery overcharge test	In house method	With full charged battery installed and charge for additional 7 hours, explosion or chemical leakage shall not occur.
36. Battery short circuit test	UL 60065 Cl. 14.10.1 (Modify with test temp. at 20 degC only and sample size to 1)	For rechargeable battery, with full charge battery installed and short circuiting the positive and negative terminals of the battery with a resistor of 0.1 ohm max.. During and after test, the battery shall not explode or catch fire, or chemical leaks. Temperature of battery pack casing shall not exceed 150 degC.
Additional test		
37. With Child Appealing Features	DG-EA051	Shall meet the requirements in DG-EA051

Test requirements	Reference Method	Requirement
38. Chemical & Energy Efficiency test for all electrical items to California*	DG-EA065	Shall meet the requirements in DG-EA065 • All products containing CA Prop 65 warning label will be reported as FAILED.
39. Dollar General Certificate of Compliance - Toxics in packaging	Client requirement	Shall provide signed/ chopped document: Dollar General Toxics in Packaging Certificate of Compliance. Client requirement
40. *Volatile organic Substances (VOC) (if applicable)	GC-MS screening/US EPA method 5000 and 8021B / doc review	Product with solvent based-liquid (eg. Adhesive, paints, glues and etc.) shall not contain toxic aromatic compounds and hazard substances. GC-MS screening or US EPA method 5000 and 8021B In lieu of testing, test report can be submitted if dated within 1 year.

* Additional Charge Item.

Testing Charge & Sample Size & Turnaround Time

Turnaround time	7 working day	
Sample size	3 pieces	
Testing charge :	Sample size	
Basic charge:	USD 250	
Additional charge:		
Chemical & Energy Efficiency test for all electrical items to California DG-EA065(US)	Subject to actual sample	Subject to actual sample
DG-EA051	USD 80 exclude chemical test	12 pieces

Remark:

1. If the product is declared as toys, it shall also be evaluated with the toys protocol.
2. Additional samples and tests may be necessary subjected to the review by Intertek upon receipt of the sample.

CONFIDENTIAL

Test requirements	Reference Method	Requirement
Document Review		
1. Labelling – Packaging or product	Uniform Labelling Regulation	Distributor's Name & Address (City, State & Zip)
		Product Identification
2. Country of origin marking (If imported)	NAFTA & FTCA / Sect. 5	Country Of Origin (If Imported)
3. Safety Certification Mark	Visual	Shall have valid UL or ETL listing. Verify listing by NRTL product directory with the sample's listing number and model number.
4. General and Cautionary Markings	UL 1839 Cls. 9	Shall be legibly and permanently marked: - Manufacturer's name, trade name, or trademark or other descriptive marking - A distinctive model number, or the equivalent - The current rating - Minimum temperature rating - The date or other dating period of manufacture not exceeding any three consecutive months For polarity identification, one clamp shall be black and the other clamp shall be a contrasting color, other than white at each end of the battery booster cable set. In addition, the contrasting color clamps shall be marked "+" and "POS" or "POSITIVE", the black clamps shall be marked "-" and "NEG" or "NEGATIVE."
5. Cautionary Markings	UL 1839 Cls. 10	Instructions 10.1.6 - 10.1.21 shall be provided as a tag permanently secured to the product. The instructions shall be preceded by the heading "INSTRUCTION FOR JUMP STARTING AN ENGINE." Upper case letters shall not be less than 2.0 mm (5/64") high and lower case letters shall not be less than 1.6 mm (1/16") high. Warning markings shall be prefixed by "WARNING" which shall not be less than 3.2 mm (1/8") high and remaining letters shall not be less than 1.6 mm (1/16").
6. Package Instructions	UL 1839 Cls. 11	The tag instruction described in 10.1.3 and the instructions described in 11.2 – 11.11 shall appear on the package or carton. The text of the instructions shall be verbatim or in equally definitive terminology. These instructions shall be preceded by the heading "IMPORTANT SAFETY INSTRUCTIONS" and this is to be followed by the statement "SAVE THESE INSTRUCTIONS."
7. Parts Inventory	Visual	Shall meet label claims.
Construction Check		
8. Packing	Visual	No hazard when removing the packing
9. Workmanship	Visual	Shall have no major defects such as: - Cracks or breakage on provided accessories - Serious scratches on the external surface - Peeling of rating or caution / warning label
10. Mechanical Assembly	Visual Check	All mechanical parts shall be securely fixed and prevented from turning.
11. Insulation Thickness	UL 1839 Cls. 3.2	The conductor insulation material shall be thermoplastic or a thermoset with a minimum average insulation thickness of not less than 1.5 mm (0.06 in) for 10 – 2 AWG (6 – 35 mm ²) wire and 2.0 mm (0.08 in) for 1 – 4/0 AWG (50 – 120 mm ²) wire. A separator shall be used between uncoated conductors and insulations with a sulfur cure. Separators are optional for other constructions.
12. Cord Length	UL 1839 Cls. 3.3	The booster cable set shall not be less than 3700 mm (12 ft) in length, measured from jaw-end to jaw-end.
Electrical Safety		

Technical information and related recommendations listed in this specification are proprietary information of Intertek Testing Services. Copying is prohibited without permission of Intertek in written document. This specification does not purport to include all the necessary provisions nor address all of the safety concerns, if any, associated with its use. Compliance with this specification does not of itself confer immunity from legal obligations.

Test requirements	Reference Method	Requirement
13. Dielectric Strength Test (on cable)	UL 1839 Cls. 4.8	The cable is to be wrapped in foil and a 500 volt, 60 Hz potential applied between the conductors and the foil, and also between the two conductors. The test voltage is to be applied for 1 minute. There shall be no evidence of breakdown of insulation.
14. Dielectric Strength Test (on clamp)	UL 1839 Cls. 5.7	The cable is to be wrapped in foil and a 500 volt, 60 Hz potential applied between the conductors and the foil, and also between the two conductors. The test voltage is to be applied for 1 minute. There shall be no evidence of breakdown of insulation.
15. Secureness	UL 1839 Cls. 5.8.1.5	Each end of the cable connected or joined to the clamp assembly is to be able to withstand a tensile force of 445 N (100 lbs), applied along an axial direction to the interface between the cable clamp and the conductor without separating.
16. Cold Impact Test	UL 1839 Cls. 4.10	Samples are to be subjected to a temperature of minus 25°C ±2°C (minus 13°F ±4°F) for 4 hours. The cable is then to be impacted by a 2.27 kg (5 lb) weight dropped from a height of 610 mm (2 ft). The samples are to be checked for signs of cracking. There shall be no evidence of cracking.
Fitness for Use		
17. Durability of Clamps	In House Method	The insulated clamp is to be subjected to 100 cycles of opening the jaws to the maximum opening position, followed by releasing the handles to the at-rest position. No damage shall be observed after test.
18. Effects of Extreme Temperature Change	In House Method	No change / failure after 24 hours each of 0 °F and 122 °F.
Additional test		
19. *Chemical & Energy Efficiency test for all electrical items to California	DG-EA065	Shall meet the requirements in DG-EA065 • All products containing CA Prop 65 warning label will be reported as FAILED.
20. Dollar General Certificate of Compliance - Toxics in packaging	Client requirement	Shall provide signed/ chopped document: Dollar General Toxics in Packaging Certificate of Compliance. Client requirement
21. *Volatile organic Substances (VOC)(if applicable)	GC-MS screening/US EPA method 5000 and 8021B / doc review	Product with solvent based-liquid (eg. Adhesive, paints, glues and etc.) shall not contain toxic aromatic compounds and hazard substances. GC-MS screening or US EPA method 5000 and 8021B In lieu of testing, test report can be submitted if dated within 1 year.

* Additional Charge Item.

Testing Charge & Sample Size & Turnaround Time

Turnaround time	7 working day	
Sample size	3 pieces	
Testing charge :		Sample size
Basic charge:	USD 180	
Additional charge:		
Chemical & Energy Efficiency test for all electrical items to California DG-EA065(US)	Subject to actual sample	Subject to actual sample

Remark: Additional samples and tests may be necessary subjected to the review by Intertek upon receipt of the sample.

Technical information and related recommendations listed in this specification are proprietary information of Intertek Testing Services. Copying is prohibited without permission of Intertek in written document. This specification does not purport to include all the necessary provisions nor address all of the safety concerns, if any, associated with its use. Compliance with this specification does not of itself confer immunity from legal obligations.

Test requirements	Reference Method	Requirement
Document Review		
1. Labelling – Packaging or product	Uniform Labelling Regulation	Distributor's Name & Address (City, State & Zip) Product Identification
2. Country of origin marking (If imported)	NAFTA & FTCA / Sect. 5	Country Of Origin (If Imported)
3. Safety Certification Mark	Visual	Shall have valid UL or ETL listing. Verify listing by NRTL product directory with the sample's listing number and model number.
4. General Markings	UL 458 Cls. 55, 56, 57	The following markings shall be legible and readily visible after the appliance is installed: - Manufacturer's name, trademark, etc. - Model number, type reference, etc. - The input voltage, frequency, and amperes or watt - The words "Provided with integral protection against overloads." - Output voltage and current - Date code - Other markings required per section
5. Cautionary Markings	UL 458 Cls. 57	A cautionary or warning marking intended to inform the user of a potential risk of fire, electrical shock, or injury to persons shall be provided.
6. Manual / Important Safety Instructions	UL 458 Cls. 58	Instructions and warnings shall be provided in manual that warns the user against reasonable, foreseeable uses or misuses of the product. It shall also include instructions regarding installation, use, safety and maintenance.
7. Parts Inventory	Visual	Shall meet label claims.
Construction Check		
8. Packing	Visual	No hazard when removing the packing
9. Workmanship	Visual	Shall have no major defects such as: - Cracks or breakage on provided accessories - Serious scratches on the external surface - Peeling of rating or caution / warning label
10. Mechanical Assembly	Visual	All mechanical parts shall be securely fixed and prevented from turning.
11. Internal Wiring	Visual	Wireways shall not allow wires to come in contact with sharp points, edges or moving parts.
12. Accessibility of Live Parts	UL 458 Cls. 8.1.1	An uninsulated live part, film-coated wire, or moving part, that could result in a risk of electric shock or injury to persons shall be located or enclosed so that unintentional contact is precluded.
13. Power Cord	UL 458 Cls. 11.2	The product shall may employ Type S, SE, SEOO, SO, ST, STO, SJ, SJE, SJEOO, SJO, SJT, SJTO, SP-3, or SPT-3 flexible cord with a grounding conductor. The length of supply cord external to the converter or inverter shall not be more than 3 feet (914 mm) measured from the face of the attachment plug to the point of entry.
Electrical Safety		
14. Dielectric Strength	UL458 Cls. 39 (Mod.)	A converter or inverter, at the maximum operating temperature reached in normal use, shall withstand for 1 minute without breakdown the application of a 60-hertz essentially sinusoidal potential of one thousand volts plus twice the maximum rated voltage: 1) Between the primary circuit and dead metal parts; 2) Between the primary and secondary circuits; and
15. Leakage Current Test	UL 458 Cls. 32	The leakage current on accessible part of a cord-connected inverter rated for a nominal 120-volt supply shall not be more than 0.75mA.

Test requirements	Reference Method	Requirement
16. Power Input Test	UL 458 Cls. 33	The input current to a inverter shall be measured with the inverter operating while connected to the maximum normal load. The current input shall not be more than 110 percent of the rated value.
17. Temperature Test	UL 458 Cls. 38	With the output load adjusted to deliver the maximum normal-load current, an inverter shall not attain a temperature at any point high enough to constitute a risk of fire, or exceed the temperature limits as below: - Supporting surface (plastic / metal): 90°C / 90°C - Handle or Knob (plastic / metal): 85°C / 60°C - Other accessible part (plastic / metal): 95°C / 70°C
18. Strain Relief	UL 458 Cls. 42.1	The strain relief means provided on a flexible cord shall withstand for 1 minute without displacement a direct pull of 35 pounds (156 N) applied to the cord, with the connections within the converter or inverter disconnected.
Fitness for Use		
19. Functional Check	Actual Use	All the major features shall be matched with the installation and use instructions and claims made on the packaging, with no inaccurate or misleading statements about the product, or any other user-friendliness problems.
20. Ease of Installation	Follow directions for installation in Instruction manual	Report relative ease of installation. Report if instructions pertaining to installation are complete and understandable. Parts shall be provided as claimed.
21. Continuous Operation	Actual use	When used with specific product, under maximum loading condition for 4 hours, the following shall not occur: - Function failure - Emission of flame - Molten metal or growing or flaming particles through any openings - Creation of any openings in the enclosure that result in accessibility of live parts - Ignition of the enclosure
Additional test		
22. *Chemical & Energy Efficiency test for all electrical items to California	DG-EA065	Shall meet the requirements in DG-EA065 • All products containing CA Prop 65 warning label will be reported as FAILED.
23. Dollar General Certificate of Compliance - Toxics in packaging	Client requirement	Shall provide signed/ chopped document: Dollar General Toxics in Packaging Certificate of Compliance. Client requirement
24. *Volatile organic Substances (VOC)(if applicable)	GC-MS screening/US EPA method 5000 and 8021B / doc review	Product with solvent based-liquid (eg. Adhesive, paints, glues and etc.) shall not contain toxic aromatic compounds and hazard substances. GC-MS screening or US EPA method 5000 and 8021B In lieu of testing, test report can be submitted if dated within 1 year.

* Additional Charge Item.

Testing Charge & Sample Size & Turnaround Time

Turnaround time	7 working day
Sample size	3 pieces

Technical information and related recommendations listed in this specification are proprietary information of Intertek Testing Services. Copying is prohibited without permission of Intertek in written document. This specification does not purport to include all the necessary provisions nor address all of the safety concerns, if any, associated with its use. Compliance with this specification does not of itself confer immunity from legal obligations.



Testing charge :		Sample size
Basic charge:	USD 200	
Additional charge:		
Chemical & Energy Efficiency test for all electrical items to California DG-EA065(US)	Subject to actual sample	Subject to actual sample

Remark: Additional samples and tests may be necessary subjected to the review by Intertek upon receipt of the sample.

DOLLAR
GENERAL
CONFIDENTIAL



Reviewed By/Date:

DOLLAR GENERAL CORPORATION TEST PROTOCOL FOR

**DGEN - 04034 - US
WIRELESS HEADPHONE (V11)**

[illegible]



BV Lab Number:
 Technician Name:
 Test Date:
 Reviewed By/Date:

DGEN - 04034 - US
WIRELESS HEADPHONE (V11)

Evaluation	Citation / Method	No. of Samples	Criteria	PPR	VT	Results	Rating
** One Time Use Products - Fair Packaging and Labeling Act - or all other products - Uniform Packaging and Labeling Regulations	F.P. and L. Act (16 CFR 500) OR NIST Uniform Laws and Regulations Handbook 130	1	Manufacturer, Packer, or Distributor's Name & Address (City, State & Zip Code)	X			
** One Time Use Products - Fair Packaging and Labeling Act - or all other products - Uniform Packaging and Labeling Regulations	F.P. and L. Act (16 CFR 500) OR NIST Uniform Laws and Regulations Handbook 130	1	Product Identification	X			
** One Time Use Products - Fair Packaging and Labeling Act - or all other products - Uniform Packaging and Labeling Regulations	F.P. and L. Act (16 CFR 500) OR NIST Uniform Laws and Regulations Handbook 130	1	Net quantity of contents shall be expressed in terms of weight or mass, measure, numerical count, or combination so as to give accurate information to facilitate consumer comparison (U.S. and metric units).	X			
** Country Of Origin	19 CFR 134	1	Shall indicate country of origin legibly, permanently, and in comparable size and close proximity to any mention of country other than country in which the article was manufactured or produced. Must be visible at point of purchase.	X			
Use labeling	CPSD-HL-01057-MTHD / Visual	1	Use/care instructions that are clear and understandable shall be provided in language appropriate to destination countries.				
Client acceptable safety agency labeling	CPSD-HL-01057-MTHD / Visual	1	Shall have valid UL or ETL Safety Agency Listing mark for USA. Report Mark.	X			
Safety agency listing verification	CPSD-EL-01090-MTHD / Verification procedure	1	Verify Client Acceptable Safety Agency Listing by contacting Listing Agency with the sample's Listing Number, Manufacturer, Model Number, and/or Agency Control Number. Shall be verified.	X			



BV Lab Number:
Technician Name:
Test Date:
Reviewed By/Date:

DGEN - 04034 - US
WIRELESS HEADPHONE (V11)

[illegible]

**DGEN - 04034 - US
WIRELESS HEADPHONE (V11)**

Evaluation	Citation / Method	No. of Samples	Criteria	PPR	VT	Results	Rating
Defects	CPSD-HL-01057-MTHD / Visual	All	Shall have no discernible surface degradation, including stains, deformations, rupture, fabric defects or unraveling.				
Defects	CPSD-HL-01057-MTHD / Visual	All	Shall have no components missing, malformed, and/or fractured.				
PERFORMANCE							
Functionality	CPSD-HL-01057-MTHD / CPSD-EL-01039-MTHD	All	[Not already covered by other tests] Shall function as intended as received. Report details of evaluation (features tested / methods used / materials used / etc.) Report any features not evaluated.				
Durability - button	CPSD-HL-01058-MTHD / Actual use	1	Buttons Must Withstand 100 Cycles Of Use				
Drop Test	CPSD-EL-01032-MTHD	1	3 drops from 1 meter on hardwood flooring. Report discrepancies and drop number.				
Adjustment - ear piece	CPSD-HL-01058-MTHD / Actual use	1	Capable of easy adjustment to accommodate a wide range of head sizes.				
Sound quality	Actual use / CPSD-HL-01058-MTHD	1	Shall provide clear sound with no hissing or audible distortion				
Adjustment - sound level - if applicable	CPSD-HL-01058-MTHD / Actual use	1	Adjust volume control to min and max extremes. Shall control volume smoothly and without static or noise.				
Operational Range	CPSD-HL-01058-MTHD / Actual use	1	Report the claimed operation range. Shall be function at claimed range. If no claim, the device shall be function at distance of 5 m.				
Transmitter	CPSD-HL-01058-MTHD / Actual use	1	Should Operate Across Claimed Frequency Range				
Interference	CPSD-HL-01058-MTHD / Actual use	1	Observe "Effect" Or "Non-Effect" Of Using Product Around Normal Home/Office Appliances (TV, Stereo, Stereo Speakers, Computers, Fluorescent Lights Etc.). No Interference Shall be Observed				

**DGEN - 04034 - US
WIRELESS HEADPHONE (V11)**

Evaluation	Citation / Method	No. of Samples	Criteria	PPR	VT	Results	Rating
Battery Product Compartment Design Guidance	ANSI C18.1M part 2-03 annex A / CPSD-HL-01057-MTHD / CPSD-HL-01058-MTHD / Dollar General Requirement	1	Products with replaceable batteries shall be provided with marking, to indicate type of battery to use, polarity alignment and how to insert correctly. Compartments shall be designed so batteries are: - secured in place and not fall out too easily - positioned to minimize risk of user harm (falling, heat, leaks), especially for devices worn on body. - not making electrical contact if inserted backwards - where practicable. - not a pressure hazard in case of cell venting - free from metal that contacts or abrades the case / jacket and may lead to short circuits. [Dollar General Requirement]: For the above battery reverse test, if the battery could be insert in opposite position with reserve current generated, the following tests applies. [Does not apply to button cell/cells operated items] • Reverse battery and measure temperature for 8 hours. • Monitor the temperature change of reversed batteries, battery compartment, and/or other high risk locations. • Record changes of temperature, report most significant observation • The measured maximum temperature rise shall be less than 45K. Rated as FAIL, if there is any malfunction noted, after the test, or the measured temperature rise exceeded the limit.				

Remark:
PPR - Pre-Production Review
VT - Verification Test

Key:



**BUREAU
VERITAS**

BV Lab Number:
Technician Name:
Test Date:
Reviewed By/Date:

Page 6 of 6

* Additional Charge For This Test
** Mandatory Requirement
By Request Only

Result Key:

C Claimed
R Recorded
M Meets
NM Does Not Meet
NA Not Applicable
NT Not Tested

Rating Key:

INCOMPLETE Incomplete
(PPT Rating
Only)
COMPLETE Complete (PPT
Rating Only)
GOOD Good
UNSAT Unsatisfactory

No. Of Samples Required for Complete Testing	3
No. Of (Fully Packed) Cartons For Transit Testing:	1
No. Of Working Days For Complete Testing:	7

Client Approval: APRIL 02, 2012 /
Chuck Rogers
Creation Date: MAY 08, 2008
Last Revision Date: NOVEMBER 18, 2011
Pricing Review Date:
Technical Review Date:



BV Lab Number:
Technician Name:
Test Date:
Reviewed By/Date:

DOLLAR GENERAL CORPORATION TEST PROTOCOL FOR

DGEN - 04255 - US

UNIVERSAL REMOTE CONTROL BATTERY OPERATED (V11)

Evaluation	Citation / Method	No. of Samples	Criteria	PPR	VT	Results	Rating
SUPPLEMENTAL PROTOCOLS							
Note: Additional cost, sample size and TAT may be required if testing to 1 or more supplemental protocols is necessary. Please refer to the below referenced supplemental protocol(s) for additional information.							
* ** Federal Communications Commission - FCC - Part 15 / industry Canada document management	CPSD-EL-PTCL-04999.9-NA / CPSD-EL-01096-MTHD	All	Electronic products shall have complied with FCC / Industry Canada regulations appropriate for the country of destination as shown by evaluation to the cited protocol. Products under FCC Verification or Declaration of Conformity must be submitted with complete and correct test reports. Designs claimed to be exempt from FCC / IC equipment authorization due to an un-obvious feature (like electronic frequency), must be submitted with acceptable supporting technical documents.	X			
* Primary battery powered product - module	CPSD-EL-PTCL-10000 Primary battery powered product	--	Shall pass Primary Battery Powered Product module. Notes to lab: Dollar General Requirement: Please see performance section below for "Battery Product Compartment Design Guidance" test.	X			
* Children's Products	DGEN-TY-PTCL-08001-US	--	For children products, please refer to DGEN-TY-PTCL-08001-US for additional testing as applicable.	X	X		
* California Proposition 65	DGEN-AN-PTCL-06572-US	-	The sample should be reviewed against the requirements of California Proposition 65 to determine if additional testing or labeling is required.	X			
LABELING							
* ** One Time Use Products - Fair Packaging and Labeling Act - or all other products - Uniform Packaging and Labeling Regulations	F.P. and L. Act (16 CFR 500) OR NIST Uniform Laws and Regulations Handbook 130	1	Manufacturer, Packer, or Distributor's Name & Address (City, State & Zip Code)	X			
* ** One Time Use Products - Fair Packaging and Labeling Act - or all other products - Uniform Packaging and Labeling Regulations	F.P. and L. Act (16 CFR 500) OR NIST Uniform Laws and Regulations Handbook 130	1	Product Identification	X			



BV Lab Number:
Technician Name:
Test Date:
Reviewed By/Date:

DGEN - 04255 - US
UNIVERSAL REMOTE CONTROL BATTERY OPERATED (V11)

[illegible]

DGEN - 04255 - US
UNIVERSAL REMOTE CONTROL BATTERY OPERATED (V11)

Evaluation	Citation / Method	No. of Samples	Criteria	PPR	VT	Results	Rating
Defects	CPSD-HL-01057-MTHD / Visual	All	Shall have no discernible surface degradation, including crazing, shivering, denting, bubbles, cracks, stains, deformations, chips, fractures, heavy lines, waves, shear marks, scratches, scuff marks, indentations, or blisters.				
Defects	CPSD-HL-01057-MTHD / Visual	All	Shall have no components missing, malformed, and/or fractured.				
PERFORMANCE							
Functionality	CPSD-HL-01057-MTHD / CPSD-EL-01039-MTHD	All	[Not already covered by other tests] Shall function as intended as received. Report details of evaluation (features tested / methods used / materials used / etc.) Report any features not evaluated.				
Operational Range	CPSD-HL-01058-MTHD / Actual use	1	Report the claimed operation range. Shall be function at claimed range. If no claim, the device shall be function at distance of 5 m.				
Durability - button	CPSD-HL-01058-MTHD / Actual use	1	Buttons shall withstand 100 cycles of use				
Drop Test	CPSD-EL-01032-MTHD	1	3 drops from 1 meter on hardwood flooring. Report discrepancies and drop number.				



BUREAU
VERITAS

BV Lab Number:
Technician Name:
Test Date:
Reviewed By/Date:

Page 4 of 5

DGEN - 04255 - US
UNIVERSAL REMOTE CONTROL BATTERY OPERATED (V11)

Evaluation	Citation / Method	No. of Samples	Criteria	PPR	VT	Results	Rating
Battery Product Compartment Design Guidance	ANSI C18.1M part 2-03 annex A / CPSD-HL-01057-MTHD / CPSD-HL-01058-MTHD / Dollar General Requirement	1	Products with replaceable batteries shall be provided with marking, to indicate type of battery to use, polarity alignment and how to insert correctly. Compartments shall be designed so batteries are: - secured in place and not fall out too easily - positioned to minimize risk of user harm (falling, heat, leaks), especially for devices worn on body. - not making electrical contact if inserted backwards - where practicable. - not a pressure hazard in case of cell venting - free from metal that contacts or abrades the case / jacket and may lead to short circuits. [Dollar General Requirement]: For the above battery reverse test, if the battery could be insert in opposite position with reserve current generated, the following tests applies. [Does not apply to button cell/cells operated items] • Reverse battery and measure temperature for 8 hours. • Monitor the temperature change of reversed batteries, battery compartment, and/or other high risk locations. • Record changes of temperature, report most significant observation • The measured maximum temperature rise shall be less than 45K. Rated as FAIL, if there is any malfunction noted, after the test, or the measured temperature rise exceeded the limit.				

Remark:
PPR - Pre-Production Review
VT - Verification Test

Key:



**BUREAU
VERITAS**

BV Lab Number:
Technician Name:
Test Date:
Reviewed By/Date:

Page 5 of 5

* Additional Charge For This Test
** Mandatory Requirement
By Request Only

Result Key:

C Claimed
R Recorded
M Meets
NM Does Not Meet
NA Not Applicable
NT Not Tested

Rating Key:

INCOMPLETE Incomplete
(PPT Rating
Only)
COMPLETE Complete (PPT
Rating Only)
GOOD Good
UNSAT Unsatisfactory

No. Of Samples Required for Complete Testing	2
No. Of (Fully Packed) Cartons For Transit Testing:	1
No. Of Working Days For Complete Testing:	7

Client Approval: APRIL 02, 2012 /
Chuck Rogers
Creation Date: MAY 07, 2008
Last Revision Date: NOVEMBER 18, 2011
Pricing Review Date:
Technical Review Date:

DOLLAR
GENERAL
CONFIDENTIAL



MODERN TESTING SERVICES TEST PROTOCOL

DOLLAR GENERAL - AC ADAPTOR EL-91310-US-V1

MTS Report Number: _____

Date: _____

Test Properties	CPSC Regulated	Pre-Production Review	Evaluation	Citation/Method	Criteria	Result
Supplemental Protocol		Documentation Review	Supplementary Protocol - CA65	CA65 [SP-572-US]	Shall meet the specific requirement in the protocol. The component applicable for phthalate test will follow client practice for CPSIA.	
Supplemental Protocol		Packaging Review/ Documentation Review	FCC PART 15 IC	FCC PART 15 IC [EL-999.9-US]	Electronic products shall have complied with FCC regulations as shown by evaluation to the cited protocol. Products under FCC Verification or Declaration of Conformity must be submitted with complete and correct test reports. Designs claimed to be exempt from FCC equipment authorization due to an un-obvious feature (like electronic frequency), must be submitted with acceptable supporting technical documents.	
Supplemental Protocol		Documentation Review	TOX	TOX [SP-002-US]	Shall meet the specific requirement in the protocol	
Supplemental Protocol		Packaging Review	* Chemical & Energy Efficiency test for all electrical items to California*	SP-CEC400-US	Shall meet the requirements in protocol of California Chemical & Energy Efficiency requirement.	
Labeling		Documentation Review	Dollar General Certificate of Compliance - Toxics in packaging	Client requirement	Shall provide signed/ chopped document: Dollar General Toxics in Packaging Certificate of Compliance. Client requirement	
Labeling		Packaging Review	UPLR (Products WITHOUT consumable components)	NIST Uniform Laws and Regulations Handbook 130	Shall be labeled with the following information: 1.Product identification 2.Manufacturer, Packer, or Distributor's Name & Address (City, State & ZIP Code) 3.Net quantity of contents shall be expressed in terms of weight or mass, measure, numerical count, or combination so as to give accurate information to facilitate consumer comparison Client requirement: Remark the missing information instead of fail	
Labeling		Packaging Review	Country of origin marking (If imported)	NAFTA & FTCA / Sect. 5	Country Of Origin (If Imported)	
Labeling		Documentation Review	Safety Certification Mark	Visual	Shall have valid UL or ETL listing. Verify listing by NRTL product directory with the sample's listing number and model number.	
Document Review		Documentation Review	Energy Efficiency for Arizona	Visual	Shall meet tier 1 of energy efficiency requirement of section 1605.3 of California Code of Regulations, title 20: division2, chapter 4, article 4. The following shall be provided, a) Test report	
Document Review		Documentation Review	DOE requirement	10 CFR 430	Shall have valid DOE certification report for verification	



MODERN TESTING SERVICES TEST PROTOCOL

DOLLAR GENERAL - AC ADAPTOR EL-91310-US-V1

MTS Report Number: _____

Date: _____

Test Properties	CPSC Regulated	Pre-Production Review	Evaluation	Citation/Method	Criteria	Result
Labeling		Packaging Review	General Markings	UL 1310 Cls. 51	Class 2 Transformer shall be legibly and permanently marked: a) Manufacturer's name, trade name, or trademark b) A distinctive catalogue or model number, or the equivalent c) The date or other dating period of manufacture not exceeding any three consecutive months d) Rated voltage e) Frequency f) Input in amperes, volt amperes, or watts g) "For Indoor Use Only" h) Caution or warning markings, in English	
				UL 60950-1, Cls. 1.7	A general, cautionary and warning marking intended to inform the user of a potential risk of fire, electrical shock, or injury to persons shall be provided. - Maker's or responsible vendor's name or trade mark - model number - other markings required by the standard	
Labeling		Packaging Review	Cautionary Markings	UL 1310 Cl. 52	Cautionary markings, where required shall be in letters no less than 1/8" high as required. - Dry location units shall be marked "CAUTION" and "Risk of Electric Shock" and the following or equivalent "Dry location use only" or "Do not expose to liquids, vapour or rain". - Battery Chargers shall be marked as required regarding the batteries that are to be charged. - Direct Plug-in units shall be marked "CAUTION", "Risk of Fire or Electric Shock. Do not replace this plug assembly". - Other markings required per section.	
				UL 60950-1, Cls. 1.7	A cautionary or warning marking intended to inform the user of a potential risk of fire, electrical shock, or injury to persons shall be provided.	
Labeling		Packaging Review	User Manual / Important Safety Instructions / Assembly Instructions	UL 1310 Cl. 54 UL 60950-1, Cls. 1.7	Instructions and warnings shall be provided in the user manual identifying reasonable foreseeable uses or misuses of the product. It shall also include instructions regarding the installation, use, safety and maintenance. All accessories shall be described in the user's manual and provided with instructions for proper use	
Labeling		Packaging Review	Parts Inventory	Visual	Shall meet label claims.	
Construction Check		Not Applicable	Packing	Visual	No hazard when removing the packing	
Construction Check		Not Applicable	Workmanship	Visual	Shall have no major defects such as: - Cracks or breakage on provided accessories - Serious scratches on the external surface - Peeling of rating or caution / warning label	
Construction Check		Not Applicable	Mechanical Assembly	Visual Check	All mechanical parts shall be securely fixed and prevented from turning.	



MODERN TESTING SERVICES TEST PROTOCOL

DOLLAR GENERAL - AC ADAPTOR EL-91310-US-V1

MTS Report Number: _____

Date: _____

Test Properties	CPSC Regulated	Pre-Production Review	Evaluation	Citation/Method	Criteria	Result
Construction Check		Not Applicable	Internal Wiring	Visual Check	Wireways shall not allow wires to come in contact with sharp points, edges or moving parts.	
Construction Check		Documentation Review	Accessibility of Live Parts	UL 1310, Cls. 16 UL 60950-1, Cls. 2.1.1.1	Inspect for access to live parts after removal of detachable parts	
Construction Check		Documentation Review	Power Cord	UL 1310, Cls. 14.2	The unit shall employ a Type SP-2, SPE-2, SPT-2, SV, SVT, SVT power supply cord. Length shall > 6 feet (1.8 m) except for unit weighing 1 pound (454 g) or less is acceptable if the total length of the input and output cords is 6 feet or more, and the length of input cord is > 3 feet.	
				UL 60950-1, Cls. 3.2.1.1, 3.2.5.1	The unit shall be provided with terminals for permanent connection to the AC Mains supply or a non-detachable power supply cord. Power cord cross-sectional area shall not be less than those specified in table 3B.	
Construction Check		Not Applicable	Plug	Visual Check	Plug shall be 3-wire grounding type or 2-wire polarized attachment plug.	
Electrical Safety		Documentation Review	Component Check	Visual	If listing safety report provided, report any difference of component used in the sample and the listing report. Exclude plastic material, insulation material or other components without marking.	
Electrical Safety		Documentation Review	Dielectric Strength Test	UL 1310, Cls. 32	Shall withstand for 1 minute without breakdown: a) 1240VAC between 1) The primary circuit and accessible dead metal parts, and 2) The primary and secondary circuit or circuits. b) 500VAC between a secondary circuit and dead metal parts	
				UL 60950, Cls. 5.2	Unit shall withstand for 1 minute without breakdown 2000VAC between AC mains and accessible part.	
Electrical Safety		Documentation Review	Leakage Current Test	UL 1310, Cls. 26	Under rated input voltage, rated loading and thermally stabilized, the measured leakage current shall not exceed a) 0.5mA for portable unit b) 0.75mA for stationary unit	
				UL 60950-1, Cls 5.1	The measured value shall not exceed the relevant limits in table 5A.	
Electrical Safety		Documentation Review	Strain Relief	UL 1310, Cls. 41	Supply cord shall withstand a 35 lbf (156 N) strain for 1 minute. For units employing a flexible output cord, the cord shall subject to a 20 lbf (89N) for 1 minute without damage.	
				UL 60950-1, Cls 3.2.6	Power supply cord shall withstand the following pull force for 25 times, 1 second each Mass of equipment (kg) ≤ 1: 30 N 1 < Mass of equipment (kg) ≤ 4: 60 N Mass of equipment (kg) > 4: 100 N	
Electrical Safety		Documentation Review	Temperature Test	UL 1310 Cl. 33	Surface temperature of any accessible surface should not exceed a temperature rise of more than 90°F (50°C)	
				UL 60950-1, Cls. 4.5 (Mod.)	Maximum temperature shall not exceed limits specified in Table 4B part 2. (Modified: accessible parts)	
Electrical Safety		Not Applicable	Continuity of Grounding Connection	In-house method	All exposed dead metal parts that are exposed to contact during any servicing operation, including maintenance and repair, and that can become energized shall be electrically connected to the grounding terminal and with earth resistance not more than 0.1 Ohm	
Electrical Safety		Not Applicable	Direct Plug-In Blade Secureness Test	In-house method	Each blade and the grounding pin, if provided, shall withstand a direct pull of 20 lbf (89 N) for 2 minutes without loosening. The two blades tested together shall also withstand a direct pull of 20 lbs. for 2 minutes without loosening.	
Electrical Safety		Documentation Review	Impact Test	UL 1310, Cls. 46.2	A sample is to be dropped (free fall) 3 times in succession from a height of 3 feet onto a hardwood surface. After test, the unit shall pass dielectric voltage withstand test.	
				UL 60950-1, Cls. 4.2.6	A sample is to be dropped (free fall) 3 times in succession from a height of 1m onto a hardwood surface. After test, the unit shall pass dielectric voltage withstand test.	



MODERN TESTING SERVICES TEST PROTOCOL

DOLLAR GENERAL - AC ADAPTOR EL-91310-US-V1

MTS Report Number: _____

Date: _____

Test Properties	CPSC Regulated	Pre-Production Review	Evaluation	Citation/Method	Criteria	Result
Fitness for Use		Packaging Review	Functional Check	Actual Use	All the major features shall be matched with the installation and use instructions and claims made on the packaging, with no inaccurate or misleading statements about the product, or any other user-friendliness problems.	
Fitness for Use		Packaging Review	Ease of Installation	Follow directions for installation in Instruction manual	Report relative ease of installation. Report if instructions pertaining to installation are complete and understandable. Parts shall be provided as claimed.	
Fitness for Use		Not Applicable	Range of Operation	In-house method	The unit should operate within the voltage range of 106-127 volts.	
Fitness for Use		Not Applicable	Continuous Operation	Actual use	When used with specific product, under maximum loading condition for 4 hours, the following shall not occur: - Function failure - Emission of flame - Molten metal or growing or flaming particles through any openings - Creation of any openings in the enclosure that result in accessibility of live parts - Ignition of the enclosure	
Fitness for Use		Not Applicable	Output Rating	General measure	When used with specific product, the maximum input rating of the product shall not exceed the maximum output rating of the AC adaptor.	

Note: It is the Vendor's responsibility to ensure that the products comply with all United States Federal, States, and local laws, regulations, and ordinances. A Pass Lab test result does not constitute a certification that a vendor's products meet all legal requirements. It is the vendor's responsibility to manufacture their items to comply with all applicable laws and in conformance with the purchase order terms and conditions.

Pre-Production Review

Packaging Review / Product Specification Review

Documentation Review

Result

Pass / Pass with Remark

Fail

Documentation Provided

Documentation Not Provided

Key

Complete / Complete[#]

Incomplete[#]

Complete [index of report]

Incomplete[#]

TAT: 5 – 7 working days

Protocol Version: V1

Revision Date: 21-Jun-12

Client Approval:

Version History: New creation (21 Jun 12)